THE CULTIVATOR.

THIRD — To Improve the Soil and the Mind. — SERIES.

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Turnips and other Root Crops.

It is generally known that turnips and other root crops are cultivated to a much greater extent in Great Britain than in the United States. Of the extent to which the various root crops are cultivated, and of the proportion between these and the various grain crops, any one may inform himself *accurately* by a comparison of the following statistics, which we select from the returns made to Parliament for the year 1854. Of 37,324,915 acres in the several counties of England and Wales, 12,441,776 acres were under tillage, and 15,212,203 under grass. Of the 12,441,776 acres under tillage there were in

	Acres.		*Acres.*
Wheat,	3,807,846	Turnips,	2,267,200
Barley,	2,667,776	Mangolds,	177,153
Oats,	1,302,782	Carrots,	12,638
Rye,	72,721	Potatoes,	192,287
Beans and peas,	673,188	Vetches,	218,551

According to the U. S. Census of 1850, there were of improved lands, 113,032,614 acres; of which there were in

	Acres		*Acres.*
Wheat,	11,000,000	Irish Potatoes,	1,000,000
Oats,	7,500,000	Sweet Potatoes,	750,000
Cotton,	5,000,000	Peas and beans,	1,000,000
Rye,	1,200,000	Buckwheat,	600,000
Barley,	300,000	Indian corn,	31,000,000

As no other root crops are reported in the U. S. Census, except potatoes, it seems a fair inference from this fact, not that there are none else cultivated, but that the number of acres under turnips and other roots was so small as not to be worth reporting, or that no place was provided in the schedules used by the enumerators on account of the small extent of land generally supposed to be devoted to these crops.

Of various facts and inferences furnished by, or deducible from the items above given from the agricultural statistics of the two countries, we think that the contrast between them in the matter of root cultivation is deserving of attention, perhaps more than any other. While England and Wales devote nearly two-thirds as many acres to raising turnips alone as they do to wheat-raising, the number of acres devoted to the latter purpose in the whole of the United States is too inconsiderable to call for any returns, or to be named along with about thirty other farm products for which separate columns were provided in the Census schedules. This striking disproportion between the two countries in turnip and root culture is doubtless owing to certain peculiarities in the circumstances, social condition, and climate of the two countries respectively; among the more prominent of which are the more exhausted condition of the long cultivated lands of England in comparison with our almost virgin soils, and the opportunity here presented of going to new settlements when the old begin to be less productive;—the greater amount of help which can be had in England, and the lower wages at which help can be hired;—and, to name no more at present, the greater severity of our winters in the Northern, Middle and Western States, rendering it much more troublesome, not only to preserve root crops from injury, but also to put and keep them in a condition for feeding out with any degree of convenience. But though these and other causes of a like nature may go far in accounting for the wonderful disproportion which we find existing, still it would be much less than it is were the farmers of this country to become *thoroughly* convinced of the *reality* of the many advantages which they might secure by a more extensive cultivation of turnips and other roots. To produce a conviction of this kind sufficiently *thorough* to lead to a more extended cultivation of turnip and other root crops, *trials* of them must be made, though only on a small scale at first, as the knowledge or convictions which we gain in this way make the deepest and most influential impression. If every reader of this who is not *thoroughly* convinced of the advantages of this crop, would inform himself well in regard to the best modes of cultivating it, of storing the roots, and of feeding them out, and would then raise enough to admit of his whole stock having a moderate quantity every day during a portion or the whole of the winter, the cultivation of turnips and roots would, unquestionably, become more generally and more extensively pursued than it has hitherto been. Were a mere enumeration and presentation of the advantages which may be justly claimed on behalf of this branch of husbandry, and which may be secured by adopting it in practice, sufficient of themselves to produce a *thorough* and *operative* conviction, without such personal and experimental trials as we have mentioned, then enough has been already done in this way to bring about a great change in this branch of farming, as may be seen by a reference to the columns of our own and

many other agricultural journals. The advantages of turnip and other root crops may be seen in a *brief* and *comprehensive* summary of them which appeared in an article under the title of "Reasons for Growing Ruta Bagas," in the issue of *The Country Gentleman*, of Dec. 6, 1855, and in the Jan. 1856, No. of *The Cultivator*.

To secure, in the most economical and appropriate way, a regular

SUPPLY OF ROOTS FOR A WHOLE WINTER,

Several kinds should be raised. The common white turnip cannot be kept in good condition much beyond the end of December or beginning of January. A calculation should therefore be made as to the amount likely to be needed until about the first of January, at the rate of from a peck to half a bushel each per day for cows and cattle, and a proportionately less quantity for sheep; and enough of land be sown with some variety of the common white turnip to secure a supply for the period just named. As an average crop of white turnips ranges from 600 to 1,000 bushels per acre, a calculation can be made on this basis, the yield being likely to correspond in quantity to the condition of the soil and the amount of care and labor which can be spared for the cultivation of the crop. For the supply of roots for the remainder of the winter, ruta bagas alone will answer, or what would be better still, there may be ruta bagas, mangolds, carrots, parsnips, sugar beets, in almost any proportion. Any of these, if well stored, will keep in good condition as long as roots may be wanted. Were nutritiveness alone regarded, ruta bagas or some other of the roots last named, might be used during the whole of the winter season. But, though white turnips contain less nutritive matter, this is counterbalanced by their requiring less manure or a less rich soil, or, in other words, by their leaving the soil with a greater supply of ammonia for the wheat or other crop, requiring ammoniacal supplies, which may follow on the same land. Another advantage of the white turnip crop is that it requires a shorter season to bring it to maturity than any of the other roots. It may be sown as late as August, or after wheat, peas, early potatoes or other early crops have been removed from the land upon which it is to be raised. And still further, as a recommendation of this crop, it may be raised in sufficient quantity for the supply of stock on the majority of farms by sowing the seed, when the weather is showery or the soil is not suffering from drouth, between the rows of Indian corn. The corn, we believe, will suffer no injury; and if more turnips are thus raised than are likely to be needed until Jan., they may be left unharvested, and sheep turned in on them alte in the fall.

Proposed Rotation of Crops.

MESSRS. EDITORS—The undersigned, a subscriber to your journal, and a friend, are beginners in farming, and occupy two farms on Long Island.

Large quantities of manure are used, without such a return, either in the crops or in the improvement of the land, as ought to be derived from the investment of capital required.

The soil of the two farms is what is called a clayey loam, containing about 40 per cent of sand, and the rotations upon them hitherto, have been as follows: First year, Indian corn—second, oats—third, wheat, and put down to grass seed.

The corn is manured in the hill. The oats, if manured at all, are either guanoed or boned. The land is then more or less well dunged for wheat, and the quantity and length of duration of the grass depends upon the quantity of manure put on for wheat when the grass is laid down.

Potatoes and turnips do not enter the rotation as field crops. The yield per acre, according to our observation, is about as follows: Indian corn, 50 bushels ears—wheat, 12 to 15 bushels—rye, 10 to 12½—oats, 25 to 30—grass about 1 ton, average.

We wish to devise a rotation which shall be an improvement on the above course, and although we feel confident of being able to do so, we are not sure that the following course which we propose, is the best one:

1st year—Indian corn dunged in the hill, eight two-horse loads of yard manure to the acre, hills four feet apart each way—4 seeds in the hill; guanoed at the second hoeing, 200 lbs. to the acre.

2d year—potatoes followed by turnips, both in drills, 30 inches apart; seed 12 inches apart in the drills; manured with barn-yard manure, 25 loads to the acre broadcast, and guanoed in the drills, 250 lbs. per acre—followed by wheat in the fall—ashed, 300 bushels per acre—2 bushels seed.

3d year—wheat or rye, followed by turnips on the stubble. The wheat to be top-dressed in the spring with 200 lbs. Peruvian guano per acre, harrowed in and rolled; the turnips to be topped on the ground and tops plowed in, in the fall.

4th year—oats, with clover and timothy seed, 15 bushels bone per acre.

5, 6, 7 and 8—grass.

There are no green crops to turn under provided for, and we do not see how to obtain one unless by sowing red clover between the corn rows after the last hoeing, in which case the guano should be sowed broadcast between the rows. Buckwheat might take the place of turnips in the 2d year; or follow the wheat in the 3d year, but our stock require root crops.

In conclusion, we would receive with pleasure any remarks from yourself or any of your correspondents. IMPROVEMENT. *Huntington, L. I.*

Remarks—1st year. Corn, after grass, forms a good beginning for the rotation.

2d and 3d years. The early potatoes, followed by turnips, cannot precede wheat, as the turnips cannot come off in time. We would propose that the potatoes occupy a portion of the corn field the first year, and that wheat be sowed immediately after the early removal of the corn; or what would probably be better if the soil will admit, that barley and peas follow the corn, and that wheat be sowed after these for the third year. Turnips may occupy the same field with the corn and potatoes, provided that peas and barley follow the second year, but they cannot be removed in time for sowing wheat.

4. So far as our observations have extended, oats is a hard crop for a farm rotation, and ought to be confined to some moist and strong land, otherwise exclusively kept in grass. Some good farmers prefer buying oats to admitting the crop to their *wheat* lands.

We would propose a course something like the following:—1st year, wheat after clover and timothy; 2, Corn, potatoes, and turnips, with all the manure of this year; 3, Peas, beans, and barley; 4, Wheat, seeded *heavily* with clover and timothy; 5, Clover, pastured for one, two or three years. Or, the following:—1, Corn and roots, with all the manure; 2, Barley or peas; 3, Wheat; 4, Clover and grass, for one, two or three years. Or, the barley and peas may be thrown out, and the course be, corn wheat, and clover.

Clover will rarely take among corn, as proposed, on account of the mid-summer heat.

☞ We are indebted to H. G. FOOTE, Esq., Ogdensburgh, for a copy of his Report, as Delegate from the New-York State Ag. Society, to the Provincial Fair of Canada East, and also for a copy of the Address delivered before the St. Lawrence Ag. Society, at its annual Fair at Canton, in Sept. last, by Hon. S. A. FOOTE of Geneva, from which we hope to find room for some extracts hereafter.

"Signs of Progress."

During a few years past we have been accustomed to see the signs of progress in the great cause of Agriculture, annually reported in *The Working Farmer*. And we have turned from these reports with some quiet wonder that so many and such inestimable improvements *should* have followed the establishment of that paper. *It* would lead the world to infer, indeed, that the agricultural progress which this century has undoubtedly seen, from subsoiling and draining to rotation in crops, was, all and wholly, attributable to the impetus which its editor had imparted to the public mind,—the first step being unquestionably due to his supposed discovery of the wondrous virtue of "analyses of soils," especially when accompanied by a $25 "consulting fee," a second as certainly to the use of his "Superphosphate of Lime," a third to that of the "Improved" ditto ditto, a fourth to the "Nitrogenized," and perhaps a fifth, though we confess he *is* silent on this point, to his recent *invention* of Chilian Guano. We have not deemed it necessary to disturb the self-complacency of the manufacturer of this last named "article of commerce," by any allusion to these modest pretensions; but when so respectable a journal as *The Homestead* is betrayed into somewhat similar errors, notice and correction of its statements seems to be proper and necessary. An article on the subject at our head, in the number of that paper, for Feb. 14th, contains the following paragraph:

"It is hardly five years since a scientific agricultural journal was established, and very little was said about the application of chemistry to agriculture in any of the older journals previous to this time. The staple of their contents was made up of the old style farming, with now and then the crude experiments of some adventurous farmer, who felt the difficulties of the ways of the grandfathers, without any clear vision of a more excellent way. Occasionally a new tool, or a new crop broke the monotony of farm life, and excited the prejudices, and waked up the wit of the plow-boys. Book-farming was in almost universal contempt, and not one farmer in ten took an agricultural paper. The papers then in existence, small and feeble as they were, were far in advance of public sentiment, and were poorly supported."

The writer of the above displays an ignorance of his subject altogether inexcusable even in one who attempts merely to furnish the data for a "history of agricultural reform in this country." He utterly ignores the existence and writings of such men, among the dead, as BUEL, GAYLORD, COLMAN, NORTON, and others,—men, who, as sound practical, aye, and scientific writers on agriculture, are unequalled by any who have entered the walks of its literature within the last "five years." And the living are treated with no less discourtesy than the dead. The writer seems to be entirely unaware of the labors of EDMUND RUFFIN, J. J. THOMAS, the brothers ALLEN, SANFORD HOWARD, Dr. LEE, J. A. WIGHT, Dr. HOLMES, M. B. BATEHAM, G. B. SMITH, and the hosts of able correspondents for the several papers with which they have been connected, all of whom have aided untiringly in the cause of agricultural improvement *during from fifteen to twenty-five years*. Who and where are the writers, within the last "five years," to throw these men so entirely into the shade? Will *The Homestead* please name them?

To what "scientific" journal or journals, established within this period, the extract alludes, we cannot imagine. They have not fallen under our eye. They certainly cannot have attracted the attention their peculiar merits would deserve. Indeed it may be questioned whether the constant additions, of late years, to the ranks of the agricultural press, have not had their customary effect, to dilute its value, and to lower its standard. They could once appeal to the patriotism of our most distinguished agriculturists for efforts to increase the number of thinking and reading farmers—now, amid the clamors of rival publishers, and the pretensions of unscrupulous or unqualified writers, the true friend of enlightened, progressive and scientific agriculture must often hesitate and stand aloof.

In regard to agricultural journals previous to 1850, we are told that "the staple of their contents was made up of the old style farming, with now and then the crude experiments of some adventurous farmer," &c. So far from this being the case, at least several of them were, on the contrary, filled to the full with the writings of the most sagacious and able men this country has yet produced. In proof of this, it is only necessary to refer to the old volumes of the *Virginia Farmer's Register*, the *American Farmer*, the *New-England Farmer*, the *Genesee Farmer*, and *The Cultivator*—all in existence twenty years ago. As we happen to have some extra copies of the last named, for 1840–1–2 and 3, we shall be glad to send copies of them to *The Homestead*, if it will take the trouble to look them over, and then point out to us any journal established within the last five years which will compare with them in "the staple of their contents." And we may add, here, that ten or fifteen years ago, it was the *objection* to *The Cultivator* on the part of all who did not read, and not a few who did, that it was *too* scientific, too largely devoted to a new-style farming, and far too irreverential toward "the ways of the grandfathers." If within "five years since," we have not thought best to go hand in hand with some pseudo-devotees of science, whose promises to the farmer have been so bright, and whose discoveries so striking, we have refrained from doing so, in the same spirit in which we aided in bearing the brunt of the conflict, when the popularity of high sounding words and specious theories was not so general as now. This course, perhaps at the present time as liable to the charge of conservatism as it was then to exactly the opposite of it, we believe at least to possess the merit of consistency with itself, and, we hope, with the best interests of our farming population.

Before the happy dawn of 1850, it happened that "occasionally a new tool or a new crop broke the monotony of farm life"! We are glad to be able to inform the *Homestead* that it will find most of the improved implements and machines which have done so much to advance the interests of agriculture, carefully figured and described in the volumes of *The Cultivator* before the year specified; and not only this, but we do not now remember that any *new invention* of decided importance to the farmer has made its appearance during the five years just concluded. It is very true that some valuable improvements have been effected, and the demand for better tools has doubtless very much increased with the growth of the country and the advance of intelligence among farmers as well as other classes.

But in those benighted days "book-farming was in almost universal contempt." If we may judge by reports from those who have sought to extend the circulation of our journals, even in this enlightened year of grace, 1856, the darkness has not yet entirely lifted off from the face of the land. And we have some knowledge, also, of what was the state of things ten years or more ago. Before 1850, over 425,000 yearly volumes of our own *Genesee Farmer* and of *The Cul-*

tivator, had gone abroad through the land, to say nothing of the circulation of their cotemporaries. "Small and feeble" though *they* were, we fear our Connecticut friend's ideas of strength and permanence are not destined to an early realization, if he considers them "poorly supported."

In conclusion, we will say that these remarks have been made in no captious spirit toward our cotemporary, but rather in the belief that the subject is full of suggestions for all who hold dear the interests of the farmer. None can rejoice more heartily in any signs of his progress than we; and in no way perhaps is it more decidedly manifested than in the greatly increased demand for agricultural literature, which now undoubtedly exists, and which *should* continue to go on, at least in an equal ratio with the increase of our population. Indeed we are quite as confident in the belief that this progress must be sure and lasting, as we are in the conviction that from the nature of things it can only be attained step by step, and in the testimony of our own observation that the past five years have certainly seen nothing more accomplished than might have been fairly predicted from the condition of agriculture at their commencement. Such being the case, a little better acquaintance with what has been done before, would be at least appropriate before pronouncing on them as forming so decided and remarkable an epoch.

Will the Osier Willow Pay?

MESSRS. EDS.—Seeing some remarks in the Country Gentleman of 7th inst., asking information as to amount of Osier Willow imported into this country, I will give you my experience in their cultivation. In the spring of 1854, seeing a communication in the Horticulturist, by C. Downing, on the Cultivation of the Osier or Basket Willow, and having some land adapted to their growth, I was induced to purchase some fifteen thousand cuttings, to try the experiment, and become convinced by facts, as all agricultural men ought to be, and not be carried away by the assertions of this or that man as to the goodness of a thing. I planted my willows, and although the drouth of 1854 killed many—yet in the fall a couple of Germans paid me a visit, and offered me $25 for the crop. This was the first year's crop, and about an acre was planted. They also offered Mr. Van Dyck of Kinderhook, for one quarter acre of second year's growth. $25, and cut and peel them. I declined their offer, and concluded to keep my crop for cuttings for the next year. But I was not convinced yet that it would "pay," and I concluded to take a trip to New-York, and see what market could be had for the raw materials. I there became convinced that the statement of Downing and others that from three to five million dollars worth of the raw material was imported, was incorrect. It has probably arisen from the fact that large quantities of French and German ware, composed wholly or in part of willow, are imported at large profit into this country. Any one, after visiting the stores of the dealers in this ware, will say at once that the amount is not overstated. Cannot this ware be manufactured here? I think it can. Much of the labor can be done by children and girls, which will reduce the cost materially. I visited some of the manufacturers of basket cradles and other ware. I was offered eight cents per pound for my crop after peeling and fitting for market. From this I came to the conclusion that at an average yield of two to three tons per acre, it was the best crop I could raise—even at one half the price offered. However I would not advise a man to go into the cultivation of the willow without he has land adapted to their growth—rich moist land, that will not grow a winter crop, and soils too wet to grow a good crop of Timothy These lands, at an outlay of five to ten dollars for preparing the ground, I think can be made to pay a far better profit than any crop that can be raised.

But some of your readers will ask—Will present prices be sustained? I answer, I do not think they will, but even at five cents per lb. it is a profitable crop with a yield of two tons per acre.

I have come to the conclusion that the judicious cultivation of the willow is as profitable, and more so, than any crop we can raise, and when we can grow it on land that will not grow any other crop, I think your readers will say at once it will pay—at any rate I shall try it to the end. JOHN H. CORNING. *Valatie, N. Y.*

The Chinese Yam—*Dioscorea batatas.*

We have received a communication from Rev. C. E. GOODRICH of Utica, written in July last, but which only recently came to our hands, in which Mr. G. reviews, at considerable length, the statements then published in this country, in relation to the *Dioscorea batatas*. Had the paper reached us at the time it was written, we should have published it at length, but with the pressure upon our columns at this season, we are compelled to content ourselves by stating that Mr. G. contends, and shows as we think conclusively, that the Dioscorea, being a tropical plant, cannot be expected to succeed in the northern portions of the United States, although it may prove useful in the Southern States. We add, however, a letter lately received from Mr. G. from which it will be seen that the later publications on this subject, have not changed his views as to the adaptation of this plant to the northern states:

Since transmitting you my article on the Dioscorea, I have seen, to-day, for the first time, two advertisements for the sale of this new plant, one of which is attended with remarks on its natural history and tested culture in Europe and the United States. I have also to-day, for the first time, read the article, on this plant, in the Report of the Commissioner of Patents for 1854, p. 165. In this last, it is said to have been imported from Shanghai in China, and to have been cultivated with especial success at Nanking. These cities are in North Lat. 32° and 33°, which are on the same parallel with Savannah in the state of Georgia. A variety is there said to grow at Hoai-King, which is used for medicinal purposes. This last place is in the interior, in Lat. 35°, near the great bend of the river Hoang-Ho. All these statements go to sustain the doctrine of the review, viz., that the Dioscorea is substantially a tropical plant, and that theoretically therefore, in its adaptation to a northern climate, it must rank with the Melon, Sweet Potato, Tomato, &c., and if so, that it can never be depended on, in a northern climate, to produce food for the million, however, with wise and expensive culture, it may become a pleasant luxury. The belt of country, in the U. States, included between about 38° and 48°, is the great region for the true potato,—the Solanum tuberosum; yet this whole region nearly, lies north of China Proper, as only an inconsiderable portion of that country extends north of the line of 38°. The same remark applies to the west of Japan.

My distrust of this new plant, as a substitute for the potato, is, in the preceding article, based purely on considerations of climate. I wrote in ignorance of all the actualities of recent experience in Europe and America. After reading the accounts referred to under date of to-day, I am not disposed to alter my judgment.

Believe me, Messrs. Editors, there is no knack of agriculture, and no curious secret power of nature to be availed of by cultivators, by means of which large

and reliable crops of tropicals can be realized in such a climate as this, with the exception of Indian corn. The potato, as is well known, can hardly be called tropical, being a mountain plant. As you move from the line of 40° south, especially on the sea-board, the prospect brightens, and hence I should not be surprised if south of 38°, the new stranger should find a congenial home, whence its annual crops of tubers may be exported to regions farther north, as is now done with the sweet potato. C. E. GOODRICH.

To the above, we add an extract from a private letter just received from a distinguished naturalist, from which it will be seen that the quality of this newly introduced vegetable is not such as to render its acclimation of very great importance:

"I see there is much said in the papers just now about the *Chinese potato;* and that some editors have the good sense to regard it as another Rohan and Morus multicaulis speculation. They are undoubtedly right in thus regarding it. A few weeks since, in conversation with Rev. M. S. CULBERTSON, who has just returned from a ten years residence in China, I was informed that what is there called the potato is scarcely entitled to such a designation, it being so unlike what we understand by that name. It is an inferior unpalatable article, which is never ate except by some of the very poorest classes. Foreign residents regard it as a great treat when they can sometimes obtain from the ships which arrive, a few of the potatoes of this country; and these they are now trying to cultivate intheir gardens there."

Management of Milch Cows.

We hope the following queries will attract the attention of our dairy farmers, and that they will furnish us the results of their experience and observation on the points indicated:

MESSRS L. TUCKER & SON—If you or any of your correspondents can satisfactorily answer the following queries, you will oblige one, and perhaps many read-

1st. Is it best to milk a cow that is giving milk, up to the time of calving? There appears to be two theories on this subject. One that it *is best* to do so, and that, even if the cow should go entirely dry, milking at the regular intervals of morning and evening, will cause her milk to return. This is the theory of some of our best dairymen in this county, and by following it up closely I have not had a dry cow (out of four that I keep,) for three years; although one of them was twice dry, before that time, once for two weeks, and once four weeks. Neither does any one of them rise higher than the "fourth order, large size, curveline cow," of Guenon classification. One of them, that has never been dry since her first calf, fills the description of the 6th order, size and class as above, which would indicate *her* period of going dry as 7 months. The other theory is, that they should be allowed to go dry from six weeks to three months—1st. Because it injures the foetus. (To this I will answer that I never saw better or more healthy calves than mine were.) And 2d, that the cows do not do so well afterwards. In Co. Gent. for Dec. 27, 1855, Skinner's introductory remarks to Guenon's book, &c. (I will not occupy your space with the names of the authors from whom I may quote—I can refer to them if necessary.)

Perhaps I may as well mention that I have a cow 5 years old, very heavy with her fourth calf, that gave promise with her *first* calf, of being a very good cow; but is no better at 5 years with her third, than she was at 3 years with her first calf. Do you think that the constant milking can be the cause? She has always appeared to be in good health, and would be selected by nineteen out of twenty men, as the best out of eight cows that were together, when she is the worst in the lot.

Query 2d. Is it best to feed cows before, at the time of, or after milking? Some say, before, by all means! as thus the system is warmed up, and the lacteal secretion called into action. Others, after, by all means! as the process of digestion interferes with the lacteal secretion. To favor this theory, one of my cows will not let down a single quart of milk while eating, or for some time after, even when giving four gallons per day. Others, again, say "it is *absolutely necessary* that a cow should be fed while milking," as her attention is then diverted from the milking, causing her to let her milk down more freely.

3d. Is it best to milk at regular intervals of twelve hours, or to milk regularly half an hour after sunrise, and at sundown, all the year round? Both theories have advocates.

4th. Some writers say, "Milk a cow *clean* as fast as you can; do *not* subject her to long stripping, and do not return to her a second time." Others, "Milk as fast as you can, and when you have milked the last cow, return to the first and *drip* her clean, stripping a long time." Which is best?

If any one can answer the above queries, from actual experience or observation, I will be much obliged to him, as I have some heifers that I would like to "train in the way they should go," and also some young cows that I would like to treat in the most *profitable* manner.

I have experimented some on the above subjects, but for fear of injuring my young cows, did not carry them far enough to satisfy myself.

I also experimented for three or four years, on the subject of salting cows, both summer and winter, in intervals of from one to four weeks. I found my cows, *invariably*, to lose from one pint to two quarts, according to the flow of milk when salted. I could discover no *difference, whatever*, in their health, thrift or appearance, whether salted or not; but as they eat rough food much better when well salted, and as they are fond of it, I gratify their appetite; although I do not think it will pay on the score of profit.

Can there be instructions given, *plain* enough to enable a farmer to spay his own cows, in a neighborhood where there is no professional spayer or veterinary surgeon?

Answer as soon as possible and oblige A READER.
Connersville, Pa.

Corn and Ruta Baga Together.

MESSRS. EDITORS—Reading in the Cultivator, Reasons for Growing Ruta Bagas, induces me to state the manner that ruta bagas are cultivated in this region of country. We plant them with our corn. First draw out our manure in the spring on sward land, spread and plow under—plow deep, and give the land a thorough harrowing. Mark with a marker, 3 feet apart, (or some more than that,)—take two parts wood ashes, one part plaster, and put your seed into it; give it a thorough mixing up with a shovel; drop a good handful in the hill, and plant your corn. The turnips will come up thrifty. The corn can be hoed nearly as quick the first time; some care must be taken not to cover or cut up the turnips. The next hoeing or hilling, they are out of the way, and should be reduced down to one turnip in the hill. If your corn fails, you are sure of a turnip crop. I have tried it successfully. One turnip in the hill does not injure the corn. Hundreds of bushels can be raised in this way, paying all the expense of labor on the corn. Every farmer who plants from 5 to 10 acres of corn, can raise from 500 to a 1000 bushels of turnips in this manner, which is almost a clear gain.

Cut up the corn as soon as it is fit, five rows together; set it around a hill, and bind with two bands. Your turnips then have a chance to grow, and can stand until very late in the fall. Then take a common hoe and

chop off the tops; then haul the turnips partially out of the ground with the side of the hoe, cut off the tap root, and give them a toss into rows, which clears them from the dirt. You can then pass along with your cart and load them for the cellar. J. F. *Whitesides Corners, N. Y.*

Blackberries and Raspberries.

Please inform me how to make the seeds of the black raspberry and the blackberry, both the high and the trailing kinds, germinate. I have sown the seeds of all, but none of them ever came up. I wish to try to improve these berries on the Van Mons plan of rapid reproduction. Most of our indigenous fruits are shamefully neglected. Were I twenty years younger, I would immediately commence experimenting on the Van Mons plan—(the true plan, I think, for permanent improvement in fruits and nuts) with the best varieties of our fine flavored hickory nuts, hazlenuts, chestnuts and butternuts, and the rank black walnut should not be neglected. J. W. NEAL. *Alexander, N. Y.*

Raspberry and blackberry seed require very much the same treatment as mountain ash seeds—that is, preservation of the natural moisture by immersion from the fruit in moist sand, earth, or peat, and exposure to the freezing of winter. Small seeds, as the raspberry and mountain ash, must be buried very shallow, in order to germinate—not over one half an inch at most, and the moisture of the fine earth with which they are covered must be preserved by proper shading.

As this is an important and interesting subject, we applied to Dr. BRINCKLE of Philadelphia, who has had so much experience as well as success in raising new varieties, and have been favored with the following answer:

"I have no experience in the germination of seed of our indigenous black raspberry. In regard to the blackberry, I planted seed several seasons without obtaining from them a single plant. In the summer of 1854, as soon as the berries were ripe, I planted a few seeds of the Boston blackberry, of the Lawton, and of the parsley-leaved, in pots which were left in the open air all winter. Many seed of each of these varieties germinated in the spring of 1855, and continued to do well. Out of ten or twelve seedlings of the parsley-leaved variety, only two retained the characteristic parsley or rather fern-leaf of the maternal parent; the others had the ordinary blackberry leaf. As a general and almost invariable rule, Blackberry seed, even when planted immediately after the maturity of the berry, will not germinate until the ensuing spring. But, in one or two instances, I have known germination to take place the same season the berry ripened; this however is exceedingly rare. The best mode to secure the germination of blackberry and raspberry seed is, probably, to plant the seed as soon as the fruit is ripe; taking care not to allow the seed, in summer and autumn, to have moisture enough to rot them."

The Strawberry Potato.

MESSRS. EDITORS—I received from Mr. G. W. Durant of Rensselaerville, last spring, a half bushel of potatoes, which he calls the White Strawberry. I cut them up into very small pieces, and planted them in 8 rows about 24 rods long, right in the middle of a field of Mercers, and they were treated in every respect like their neighbors. I gathered thirty bushels from this half bushel, of as beautiful smooth tubers as one would wish to see. Their eating properties are unsurpassed—yes, I may say unequalled by any potatoes I have ever eaten. They are freer from disease than my Mercers, and yield far better. I think them a valuable acquisition and well worthy of dissemination. C. N. BROWN. *Orient, L. I.*

Experiments with Oats.

POLAND OATS.—I have grown the white Poland oats for four or five years, and find them good producers on good soils. The only fault found with them, is that they are liable to lodge on some soils, when nearly ripe, owing to the weight of grain. This can in a measure be remedied by cutting as soon as the straw turns yellow below the head. The White Poland, or more correctly the Friezeland or Dutch, has a large white grain, mostly double,—the large one awned—the awns more or less twisted. This oat requires a rich, warm soil. It is a week or ten days earlier than the common white. The grain weighs from 38 to 44 pounds per bushel. The yield last year was, in several instances, from 70 to 100 bushels per acre. One field of 10 acres produced 700 bushels as measured from the thresher—another, 98 bushels per acre. I received a line from a farmer, saying that from three bushels, sowed on one acre and thirty-six rods, he got 118 bushels, and took the first premium. With care in saving seed, and on good soils, I think it will not deteriorate.

WHITE SIBERIAN, or a variety by that name, has recently been introduced in this section, and proves to be extremely productive. It will grow and produce large crops on light soils. The grains are white, and double and triple. The grains are not awned, and have a thin husk. The weight is about 32 pounds per bushel. Heads have been selected this season, measuring 20 inches in length, and bearing over 300 grains each. This oat will prove a decided favorite in many sections.

BLACK TARTARIAN.—The Improved Black Tartarian originated from a single head found growing among other oats. It was selected from its apparent superiority, and has proved a valuable acquisition. The grains are large and of a glossy black, except near the flower end, which is brighter colored. The grains are double. The large ones mostly awned. These oats are large and plump, weighing 36 or more pounds per bushel. They are well adapted to rich, heavy soils. The yield per acre is good. The straw is stiff, and they are not liable to lodge.

BLACK OATS OF FRANCE, (Avoix Noire de Brie.)—These are beautiful black oats, resembling the Friezeland or Dutch. They are said to weigh from 40 to 48 pounds per bushel in France. The grains are double—the large ones awned—the awns frequently twisted. The grains are large and plump, and of a dark glossy color except the flower end, which is quite light. I think from what I have tried, that they will prove a superior oat. I suppose from the size of the grain, and the number on each head, that they will produce well. They ripen early. The seeds of this oat were sent from France, and distributed by the Patent Office.

CALIFORNIA OATS.—I sowed two varieties of California oats, but owing to the season or soil, they did not do well. They were white, and the straw of one variety was 7 or 8 feet long. J. A. CLARK. *Marion, Wayne Co., N. Y.*

Cure for Warts on Horses.

MESSRS. EDITORS—I saw in one of your late numbers, a recipe for curing warts on horses. I had a valuable horse with a wart on the inside of the thigh, as large as a man's thumb, three-fourths of an inch long. I applied wafers to it several times. It removed it entirely in a few weeks, without any annoyance to the animal. JAMES FULLER. *Whitesides Corners, N. Y.*

Subdivisions of Farms.

DAVID DICKSON, of Winfield, Lake Co., Ia., has furnished us with a plan of his farm as it now is, with a request for a proposed subdivision adapted to a suitable rotation. This plan is represented by fig. 1, the land being all cleared,

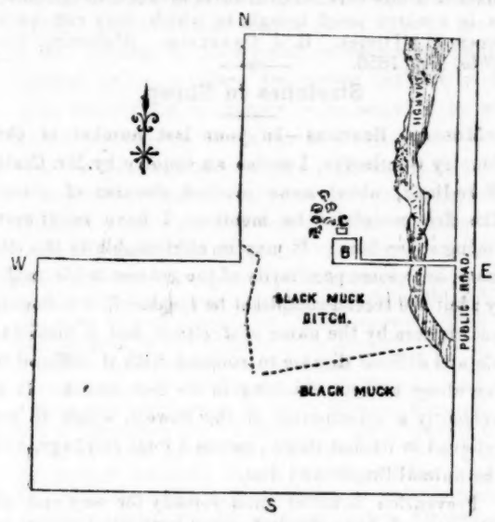


Fig. 1—Farm, as it now is.

(the woodland being a mile distant,) and all sandy or clayey loam, except those portions marked as muck and marsh. B is the garden, and C the house, and it is intended to build a barn north of the house, in order to secure a side-hill locality. The south side of the house would be a more central place for the barn, but the ground is unsuitable. The whole farm is rolling land, but has a general and gradual descent from the south-west to the north-east—and no part is too steep to plow. The whole contains about 120 acres.

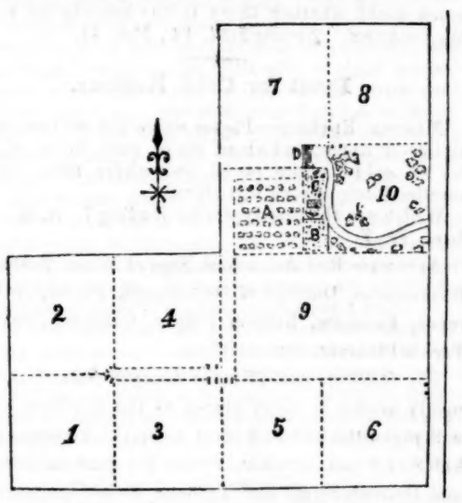


Fig. 2—Farm, with proposed subdivisions.

In figure 2, we have given the plan which we propose for this farm. A more accurate knowledge of the surface might enable us to improve this plan, as we may possibly have run the lane which leads to the several fields over hills, which might be avoided by slight flexures, or by altering its position.

There are ten fields besides the orchard, containing about eleven acres each. If this is more than can be fenced at once, Nos. 1 and 2, may be thrown into one field, and the same may be done with 5 and 6, and with 7 and 8, leaving only seven fields. No. 10, being intersected by the marsh, (which now affords heavy crops of wild hay,) and in front of the house, we have concluded to throw several acres into pasture, to plant a few trees to give it something of a park appearance, and to give a curve to the entrance road, to avoid the stiffness of straight lines. If thought best, less breadth may be given to this field, leaving it still wide enough to embrace the curved entrance. The grass is to be kept short by pasturing animals.

The soil west of the house being more sandy, we propose to occupy as an orchard. No. 7 may also be used for this purpose, if desired.

The barn is easily accessible, and, fronting the east, the yard is protected from west winds.

Fields number 1, 2, 3, 4, 5, 6 and 7, if we understand the description of the land, will be dry land, and capable of entering any proposed rotation. No 8 is largely marsh, and No 9 low black muck. The former may therefore be mostly kept as meadow or pasture, and the latter for corn and turnips, or pasture and meadow. These low portions will need a large portion of timothy for seeding.

Fields Nos. 7 and 8, are entered from the barnyard; 9, from the public road, or from the lane back of the orchard, or both; and No. 6, from the road. All the others are accessible from the lane.

The following rotations may be adopted, or varied from according to circumstances.

Three-course system—1st year, corn, potatoes, carrots and ruta bagas, with all the manure—2d, wheat—3d, clover, one or more years.

Four-course system—1st, corn and roots—2d, barley and peas—3d, wheat—4th, clover, one or more years. The seven arable fields will admit four years of grass in this course. If more wheat is desired in this course, a crop of wheat may commence the rotation, and precede the corn.

Another Precocious Pullet.

MESSRS. EDITORS—I noticed in the Country Gentleman, an account of a precocious pullet, which commenced laying at four months old—sat, and hatched a litter of chickens by the first of November, she being then about six months old.

That "Blue Nose," and others, may know that we have as *smart* pullets, to say nothing about anything else, down in the old Bay State as in Her Majesty's Dominions, I will relate the following fact. I had a pullet, a cross between the Black Bantam and Black Spanish, which was hatched the 16th of March; she commenced laying the 20th of July, and laid twelve or thirteen eggs inas many successive days. She then sat, and hatched nine chickens on the 23d of August, and raised them all, being eight pullets and crower. She commenced laying again in December following, and continued to lay through the winter, with occasional intermission.

After having had experience with nearly all of the different varieties of fowls, I think I can safely say that I know of no kind, that, for early and constant laying, excel, or even equal, this cross of the Black Bantam and Black Spanish breeds. A SUBSCRIBER.

West Bridgewater, Mass.

Errors in Nurseries.

A great improvement has been made of late years in the character for accuracy, of nurseries generally throughout the country, but more especially of those of well known responsibility and established reputation. All intelligent and careful nurserymen have now connected with their establishments, specimen grounds, containing trees for proving the correctness of all the sorts cultivated. Twenty years ago, most of the nurseries were little else than a mass of blunders and confusion; it often happened that a collection of trees obtained from some of high repute, proved on bearing to be more than half untrue to names. Now we could name several, where purchasers may as a general rule get every thing they send for—errors being rare exceptions.

But there are still a large number of nurseries of a certain class, which remain quite as bad as ever—those more especially which have been established by persons who know very little or nothing of our best standard fruits—who never attend a pomological meeting or exhibition of fruits, nor keep up with the intelligence of the day—whose only object is to make money at all hazards—and whose only customers are those who are equally uninformed on these subjects, and who will always buy trees where they can procure them "cheapest." A correspondent in a remote part of western Pennsylvania, in speaking of the difficulties we have alluded to, remarks, "There are at least twenty nurseries within twenty miles of this place, but many of them cannot be relied upon; indeed, I do not know that any of them can. They are selling almost every variety of shape, color, and flavor of apples, by the name of some standard sort, not one of which corresponds with the description of the same apple given in your *Fruit Culturist*. For instance, they sell for Rhode Island Greening, an apple *striped with red!* much resembling the Rambo, but *smaller* and inferior every way. For Newtown Pippin, a small, yellow, knotty and scrubby apple, scarcely keeping till March—and so of the rest."

The remedy for these evils, is the dissemination of pomological knowledge, through associations, periodicals, and the cultivation and spread of the best sorts. Those who "cannot afford" to avail themselves of these sources of information, will of course continue to be imposed upon, to a much greater extent than the amount tus "*saved.*"

Feeding Salt and Ashes.

In the Cultivator for Jan. 1856, and in previous numbers, complaints are made that cattle have been afflicted last year with diarrhœa and bloody murrain, (red water;) that horses, cattle and sheep have been afflicted with slavering, and have been unusually thin in flesh and drooping; that the milk in cows was variable in quantity and quality. Such complaints are common in wet seasons, and on new and undrained wet lands in all seasons. All these troubles arise from the bad quality of the grasses or hay and the indigestion of them consequent thereon.

The only convenient remedy for these troubles consists in feeding salt and ashes to gramniverous animals throughout the year. For this purpose leached ashes should be used; and that for two reasons. One is, that the potash contained in unleached ashes, is so very caustic that it sometimes blisters the lips of sheep feeding upon such ashes; and the other reason is that gramniverous animals will not eat a sufficient quantity of them.

For the above purpose mix well together one part salt, with 3 or 4 or 5 parts of leached ashes; place them in a box covered over so as to exclude the rain, or in a water proof trough, to which they can have access at all times. H. J. CANFIELD. *Mahoning Co. Ohio, Feb.* 1856.

Stretches in Sheep.

MESSRS. EDITORS—In your last number of the Country Gentleman, I notice an inquiry by Mr. Craig of Indiana, about some marked diseases of sheep. The first complaint he mentions, I have never seen among sheep here. It may be attributable to the climate, or to some peculiarity of the grasses in his locality; but the second complaint he speaks of, is a disease known here by the name of *stretches*, and a formidable and difficult disease to contend with if suffered to run along without ckecking in its first attack. It is evidently a constipation of the bowels, which if not relieved in its first stages, causes a total stoppage, and the animal lingers and dies.

Prevention is better than remedy for any and all diseases. I formerly lost some very good sheep by this disease, but since keeping a supply of good coarse salt constantly by my flocks, with pure aqueduct water running in each yard, it is very seldom that a sheep is attacked with it. Whenever I see one showing the unmistakable symptoms, by standing with its forward feet pulling and its back ones pushing, as though its small intestines were contracting and slipping into each other, and the instinctive endeavors to draw them back to a natural condition, I immediately pour into its stomach one half gill of castor oil. If this does not give relief within 12 hours, I repeat the dose. But if given on the first indications of the attack the second dose will not be necessary. It is very important to apply the remedy as soon as possible; for after the disease has progressed until a dry, hard and black substance has formed in the alimentary passage, I very much doubt whether there is any remedy for it. J. W. COLBURN. *Springfield, Vt., Feb.* 14.

Fruit for Cold Regions.

MESSRS. EDITORS—Please name ten or twelve varieties of apple, and about six of pear, for a climate far too cold for the peach, and where none but the smaller kinds of corn will ripen.

Which are the best apples for feeding? A. B. *Hobart, N. Y.*

APPLES.—Red Astrachan, Sops of Wine, Early Joe, Gravenstein, Duchess of Oldenburgh, Porter, St. Lawrence, Fameuse, Ribston Pippin, Baldwin, Jonathan, Peck's Pleasant, Pomme Grise.

For feeding, probably the *Sawyer Sweeting*, commonly known in many places as the Northern Sweet, will prove the best and most valuable variety. Haskell Sweet and Autumnal Swaar are good autumn sorts and Danvers Sweet and Tallman Sweet are excellent winter sweet apples, in addition to the Sawyer.

PEARS.—Osband's Summer, Beurre Giffard, for early varieties; Virgalieu and Flemish Beauty for autumn pears; and Lawrence and Winter Nelis for late sorts.

Successful Operation of Elgar's Wind Power.

Eds. of Country Gentlemen—In your paper of Jan. 31, there are several inquiries made by correspondents, in regard to wind mills, accompanied by some remarks of the editors, together with a request for further information on the subject from any persons who have made trial of wind power. As I have had some experience in that way, with an instrument which I believe is calculated to prove a public benefit, I feel disposed to do my part in recommending it to general notice, as there are strong indications of a wide demand for machinery to be impelled by wind power, provided an article can be obtained which shall combine the essential requisites. These are, simplicity of construction and perfect capacity for self-regulation. Hitherto as seems to me, and (I have examined the models in the Patent Office several times,) most of the machines that have been invented, are too complicated and have failed to solve the great problem of making the wind power *directly* its own governor. This object appears, however, to be fully accomplished in the machine I use, which was invented and patented by John Elgar, of Baltimore, Md., a diagram and description of which were inserted in your paper of the 6th of December last. I have had one in operation for about five months, to great satisfaction. After getting the springs adjusted, it was started, and has been in full working trim from that day to this, furnishing sufficient water for all purposes, house, kitchen and stock, without having to touch it for any purpose except to stop it when the reservoirs are full, or to start it when they want replenishing (which can be done by a child) and a few hours interruption caused by frost, owing to a part of the machinery not having been sufficiently protected from the rain.

As to durability—being made nearly all of iron, and the parts well adjusted, I can as yet see no wear in any part that will be likely to require much if any repairs for many years, if proper attention is paid to oiling it.

The mill was first put directly over the well, which is about 10 feet from the kitchen, but we found the free passage of the wind obstructed by the dwelling house, and had to change its location. It is now about 89 feet from the well, and works the pump by an iron rod, half an inch diameter, suspended from posts by a wire. This requires two cranks. The wheel is 10 feet diameter, and the piston has 2¼ inch stroke, which could be more than doubled if more water was wanted, but with this stroke the mill with a right breeze will work with 150 pound weight on the piston rod, and throw from an inch pipe over 1 gallon of water per minute. This gives us far more water than is wanted, and accordingly we do not find it necessary to pump longer than an average of 2 hours in the 24.

The present winter has been well calculated to try wind wheels, but so far this one, with all the severe gales which we have had, has maintained its character for *direct self-regulation*, and consequent exemption from injury. It has performed all required of it without the loss of a screw or starting a bolt.

I can confidently recommend those who desire to employ wind power to examine the structure and action of this machine. Its simplicity and adaptation to the purposes for which it is designed, bring it under the class of those happy inventions, that have just got hold of nature and set her to work on her own plan. Caleb Stabler. *Drayton, Md.*

Thornless Blackberry.—Wm. R. Prince, of Flushing, informs us that this blackberry, noticed by a correspondent in the Co. Gent. of Jan. 10, has been cultivated in their gardens by his father and himself for fifty years.

Wonders Familiar and Unobserved.

The pains that are taken to ransack remote countries for vegetable wonders, are in every way commendable. But we ought not to neglect those immediately under our own eyes, and easy to be procured. About the time or immediately after the tulip mania in Holland, the people of England opened their eyes with astonishment, on hearing that there was a magnificent tree discovered in America, that, during the season of flowering, was *covered with tulips!* The excitement was great, and pains were taken to procure the tree that became all the fashion. It truly deserved to be, for although it was our familiar *tulip-tree*, "the real old *yellow whitewood*," of the Yankees, (*Liriodendron tulipifera*,) it is certainly one of the finest shade trees of any country. Another example is the *Hemlock*, which is discarded with contempt by some who will pay several dollars for East India evergreens, of decidedly inferior beauty, and requiring nursing through every winter. Our common *Sumach*, (*Rhus typhinum*,) with its long pinnate leaves and large compact panicles of red berries, would be a *wonder* if recently discovered in China, but is now regarded almost as a nuisance. We observe that some of the English nursery catalogues offer our fence-line *elders* for sale in *pots*, and some other varieties equally common here. "'Tis distance lends enchantment to the view," but true taste, properly cultivated, will find as much beauty in common objects, as in those which are hard to procure. We should be glad to see more attention given to our native trees in forming ornamental plantations. The Black, Silver, and Sugar Maples, are really more desirable than many imported rarities; our Catalpa is more valuable than the eastern Paulownia; the common White Pine is equalled in beauty by few of the new costly evergreens; and similar examples are common. As Cowper observes, "The world is all a miracle, but daily seen, is miracle in vain," because a habit and disposition to appreciate and admire what is beautiful and wonderful constantly around us, is not cultivated. There can be nothing more elevating, and tending to raise the mind above the level of brutes, than a habit of this kind. It was in allusion to the very common standard of measuring everything by the amount of food it will furnish, or *money* it will bring, that induced an eminent naturalist to make this very just remark:—"That existence is surely contemptible, which regards only the gratification of instinctive wants, and the preservation of a body made to perish."

Supports for Newly Planted Trees.

Messrs. Editors—Observing an article in the January number of the Cultivator, page 12, on the mode of protecting young trees from the wind, I thought I would acquaint you with a method which I tried last summer, having previously used others which did not satisfy me so well, or answer so good a purpose. You will perceive the main advantage to be in simplicity, and in effectually preventing the tree from swaying in any direction. I make a frame by driving down two

upright stakes, of a size suitable to the age of the tree to be supported, being careful not to interfere too much with the roots, letting them go deep enough to be quite firm, and as high as, or even higher, than the lower branches—say full two-thirds the height of the tree; then nail a strip of wood across the top, and tie the tree to that, but loose enough to prevent girdling. White oak and chestnut, or almost any other kind of wood, prepared by immersion in diluted sulphate of zinc, will last a great while. L. B. SUMNER. *Grantville, Mass.*

Raising Fruit Stocks, &c.

Where are colored plates, suitable for framing, of fruit and flowers, to be obtained? (1)

What is the *Manetti* stock, on which roses are worked—where procured and how increased? (2)

What is the Doucain stock—how procured and increased? and the same questions in relation to *Mahaleb* and *Paradise* stocks? (3)

How are evergreens grown from the seed successfully—Arbor-vitæ, Norway Spruce, &c.?

What is the best method of cleaning apple seed—separating it from the *pomace*, &c.? (4)

How are fruit scions best preserved for two months or so in cellar? (5) W. D. *Morristown, N. J.*

(1.) We know of no place where they are offered for sale. They are occasionally found in the print shops, but usually not with much scientific accuracy. The colored edition of the Horticulturist contains the best we know of issued in this country, but they are small, and not intended for framing.

(2) It is a strong, late growing rose, the best sort for budding the rose upon. It may be had of some of the nurserymen, and is increased by cuttings, by layers and by stools.

(3.) The Paradise is a small species of apples, on which the cultivated varieties of the apple are worked, to make small dwarfs, growing about 4 or 5 feet high. The Doucain is a large species, and gives dwarf trees much larger than the Paradise, capable of being trained into respectable pyramids. Both are propagated by stools—that is, by cutting off the stems, so as to cause numerous sprouts or young shoots, which are banked up with earth early the following spring. Roots are thrown out from these shoots into the earth, and the newly formed plants are cut off from the stock the succeeding autumn. Successive crops are thus taken from the roots.

The Mahaleb is the stock for the dwarf cherry, and is raised from seed.

(4.) The mode of raising evergreens from seed, we gave lately in answer to an inquiry; and some weeks since the mode of washing out apple seed from pomace.

(5.) In a box of slightly moist sand, or packed in layers alternating with damp moss. The drier the better, provided there is no contracting or shrivelling from the evaporation of moisture. They should be occasionally examined in the boxes.

Artificial Manures for Fruit Trees.

I should like to know whether any of the artificial manures would answer as good a purpose in the case of fruit trees, as farm made manures. J. H. HODSON. *Sackville, N S.*

The best manures for fruit trees, under usual circumstances, are composts made of stable manure, turf, muck, or loam, with a small quantity of ashes, and still less lime. The addition of guano, bone manure, &c. increases its value. The proportions may be one third yard manure, over one third turf, loam, or peat, and a tenth ashes, a twentieth guano, or bone manure The special manures applied separately, *sometimes* produce decided results, but not usually.

Letter from East Tennessee.

MESSRS. EDITORS—I enclose you my third remittance this year, making close on one hundred subscribers I have sent you for The Cultivator, this year. I want no better indication of the improving condition of our agriculturists than their greatly increasing disposition to patronize agricultural papers; and your Cultivator is almost universally regarded as standing at the head of its class. I have sent for it more or less subscribers each year for the last fifteen; but until the last, have been rarely able to obtain more than from six to a dozen each year. Last year, with a little increased trouble, I sent you near seventy.

The agricultural inducements of East Tenessee, are augmenting with almost unexampled rapidity. Last year we held our first County Fair, which was crowded with interest to our citizens, and spake loudly for the future.

Our division of the state has been denominated "*The Switzerland of America*," being surrounded by mountain barriers, much isolated from markets, and penetrated by ridges, making it, too, a land of valleys. The genius of railroad enterprise, has pushed to our borders on the south and west and deep into our leading valley, affording a ready means of transit to market for our valuable staples, and has quickened the energies of our people to a degree hitherto unthought of. The Virginia and East Tennessee railroad will soon be completed, making a connecting stem between the various roads that come to our borders from the south and west, and the north east, and which, by "manifest destiny," is bound to be the great thoroughfare for transportation and travel between those largely interchanging divisions of our union—courted not less by our healthful breezes and magnificent scenery, than by direction of line. We have water power sufficient to turn the combined machinery of the world, and minerals and fuel to work out its supply of metal. Our land has increased in value from one to three hundred per cent, and yet every prospect is in favor of investments in land. E. LINK. *Greenville, Tenn.*

Plans of Farm Houses.

As I am writing, I will venture to mention what I have often thought, which is, that the plans for dwelling houses, found in your and almost all other publications, are aside from the common wants of a farming community. I think they usually are too high, or too low, for the great middle class of our community, which, if I mistake not, seek for strength, durability, comfort, convenience and neatness, at an expense varying from one to two thousand dollars. The few expend several thousands, while a few attempt with less than one; but in nine cases out of ten the farmers of of our country range between.

Every form of building, from the 8 sided or square, to the numberless corners and angles of the gothic cottage, and every kind of material from the rough stones of our mountains or the smooth pebbles of our streams, the logs of our mountains to the balloon frames of the West, are found scattered through the length and breadth of our land. The comparative expense of each with their relative advantages, are questions of much interest to multitudes. H. D. HAWLEY. *Farmington, Ct.*

The above remarks of our correspondent contain much truth, and in our next Rural Register we intend to give several plans and designs, precisely of the character desired.

ENTOMOLOGY.

No. 8—Cut-worms.

L. A. Brown, Esq., of West Haven, Ct., under date of July 21st, 1855, writes to the editors of the Country Gentleman as follows:

Will you or some of your readers inform us, through your paper, how the *Cut-worm* is produced—whether from the miller, or whether they bring forth their young like the rabbit or any of the animal creation? I would like to know also whether one kind of soil more than another, or whether different manures, coarse or fine, have a tendency to increase their numbers. Their name is legion with us, this season. More than thirty have been found around one cucumber hill. Whole fields of cabbages have been cut down in a night. The subject of their production has been up for discussion, but no one seems to know, nor is there any author that we have that throws any light on the subject. I have had some experience relating to their production, but it is so at variance with my previous ideas that I want more light before publishing it.

Whether the cut-worm is more numerous in one kind of soil than another, I am unable to say. The soil of my own neighborhood is a gravelly loam, and in this the cut-worm is common. I presume it is equally common in sandy and clay soils. In one instance, at the bottom of a bowl-shaped hollow, where the soil partook of the nature of a stiff clay, a number of cut-worms were found, when there were scarcely any in the surrounding gravelly soil; but it was probably the more juicy, tender growth of the corn in this damp hollow, which caused the worms to gather there, rather than the nature of the soil.

I do not think the fertility of the soil, or the kind of manure which is applied to it, has any influence upon these worms, except in making the plants grow more succulent, for it is vegetation of this character which appears to be their favorite food. We all know these worms are common in our highly manured gardens. And I have never found them more plenty than on one occasion among beans planted upon a hill-side, so barren that it was thought nothing else could be raised there.

The biography of these worms is briefly as follows: The parent insect drops her eggs upon the ground, the latter part of summer. These soon hatch, and the young worms which come from them, crawl into the ground and feed upon the roots and tender shoots of herbaceous plants. When cold weather arrives they descend a few inches below the surface and there lie torpid during the winter, and renew their activity when spring returns. It is not until they have nearly completed their growth, in the month of June, that they show that habit which renders them so injurious, and has acquired for them their name, "cut-worm." They then crawl from the earth, by night, and with their sharp teeth cut off the young succulent plants of maize, cabbage, beans, &c., almost as smoothly as though it were done with a knife. When daylight approaches, each worm crawls into the ground again, entering it within a few inches of the plant it has severed—the newly disturbed and rough appearance of the dirt showing the exact spot where it has gone into the ground, and rendering it easy to uncover and destroy the worm. Having got its growth it forms a little oval cavity in the ground, within which it lies and changes to a pupa or chrysalis. In this state it has some resemblance to a long slim egg of a chestnut brown color, having several impressed rings or joints towards its pointed or tail end. From this pupa, in three or four weeks, hatches the perfect insect, which is a dark colored miller or moth.

Every observing person is aware there are several kinds of these worms, differing from each other in the color of their heads, the stripes upon their bodies, and in their habits. But unfortunately we do not yet know which particular species of moth it is which either of the kinds of these worms produces. I have repeatedly endeavored to breed the moth from these worms, by placing them in cages into which I transplanted young corn, beans, &c., and also by placing bell-glasses over corn hills where worms had buried themselves. But I have never been able to succeed. The worms on finding themselves imprisoned, refuse to eat, and hurriedly crawl around and around the inner side of their prison, night after night, until they literally travel themselves to death. They are by no means such sluggish, stupid creatures as one would suppose from seeing them in the day time. By night they are as active as any other animal whose skin is stuffed and distended with food as theirs is. They are evidently able to crawl quite a distance in a single night. It is the common opinion that they are always bred in the ground near the spot where they do their mischief. But I suspect they are everywhere wandering about, nightly, in search of such tender, succulent plants as will furnish them a dainty repast, and that they thus in many instances enter our gardens and corn-fields from the surrounding enclosures. They certainly, if so inclined, could travel across the largest of our arable fields in a few hours.

The following short descriptions of the different kinds of cut-worms which have fallen under my notice, and their habits, I extract from my manuscripts. All these worms, except the White one, are about an inch and a quarter in length when at rest, and an inch and a half when crawling. They all have four polished elevated dots upon each segment, on the back, and a few others which are less distinct, upon the sides, each dot bearing an exceedingly fine hair.

The Red-headed cut-worm is of a dull pale brown color, without any stripes, and may be distinguished from all the other kinds by its head, which is of a tawny red color, instead of smoky yellowish as it is in each of the following, except the last one. Common in cornfields, cutting off the plants slightly below the surface of the ground, and thus always destroying them. On Staten and Long Island, I am told, this species is popularly named the "Tiger worm," from its destructive habits, and that the name cut-worm is there applied only to the next species.

The Striped cut-worm is dirty whitish or pale smoky, with darker brown stripes, of which there are two along the back and three broader ones along each side; dots black, as they are in the preceding species, but not so minute. This is the most common kind in cornfields, cutting off the plants half an inch above the ground; hence the stalk frequently shoots up again, from the middle of the stump. This occasionally occurs among beans also. It buries itself but slightly, and may sometimes be found with half its back exposed, even though the sun be shining clear and hot.

The Faintly-lined cut-worm is dull brown, with very faint pale longitudinal lines, and the polished dots but little darker than the general color. Found in cornfields, but more commonly in gardens among cabbages and sometimes among onions. Buries itself but slightly

The White cut-worm is smaller, being scarcely an inch long when at rest. It is dull white, with black dots and no stripes or lines except a row of very faint brownish touches along the upper part of each side. It is rare, a single individual being occasionally found among corn and beans.

The Black-headed cut-worm is dull dark brown, with faint traces of pale lines, and its head deep black. This is probably what is named the "Black worm" in some neighborhoods. It is the most common kind among beans, cutting them off slightly below the surface, and drawing the severed stem into the hole where it buries itself, and there feeding upon it during the

day, till the whole is devoured, or only pieces of the wilted leaves remain, plugging up the entrance of the hole. Either the Striped or the Lined cut-worm frequently treats corn in this same way. Hence the stump may often be found without any wilted leaves lying near it.

There are doubtless other species of cut-worms which have not yet presented themselves to my notice, my investigations of these insects being as yet far from complete. My young cucumbers being always enclosed in boxes open at the bottom and top, are never molested by cut-worms, and seldom by other insects; hence I know not the worm which depredates on them.

As already stated, the particular species of moth or miller into which either of our American cut-worms changes, has never been ascertained. Most of the species, however, pertain to the genus *Agrotis*, of the family NOCTUIDÆ, or Owlet-moths. In England the insects of this genus are named "Dart moths," from a peculiar spot or streak which many of them have near the base of their fore wings, resembling the point of a dart or spear. Much the most common species of this genus in the state of New-York, can be nothing else than the Gothic Dart (*Agrotis subgothica*) of the British entomologists. This was first described by Mr. Haworth in the year 1810, and is current in all the books as a British insect. Mr. Stephens, however, says it is very rare, only three or four specimens having been found in England I doubt not it is an American insect, the eggs or larvæ of which have accidentally been carried to England, probably in the earth in which plants have been transported thither. Here it is one of the most common of those moths which come in at the open windows of our houses in warm summer evenings, attracted by the lights of the candles. I have thus taken more than a dozen specimens in an hour. It begins to appear early in July and continues till September, and in Illinois I met with it on one of the last days of this month. Its wings when spread measure from over an inch and a quarter to an inch and a half across. It is of a grayish-brown color, and the four wings have a broad whitish stripe on the outer margin from the base to beyond the middle, and another branching from this and running through the centre of the wing. Between these whitish stripes is a pale triangular spot having its outer side wholly confluent with the outer stripe, and back of this is a second pale spot which is kidney-shaped, the space before, between and behind these spots being black or dark brown. And extending from the base of the wing along the inner side of the inner stripe is a broad black or dark brown streak (representing the dart head above alluded to,) which streak is crossed by two slender pale lines, these lines not parallel with each other. This last mark with the two pale lines across it, will alone distinguish this from all our other moths.

Our next most common species is the Devastating Dart (*Agrotis devastator.*) thus named by Mr. Brace in the year 1819, in a short article upon the cut-worm, published in the first volume of Silliman's Journal, page 157. And it appears to be this same species, which has recently been figured and named *Agrotis Marshallana* by Mr. Westwood, from a single specimen found in England by T. Marshall, Esq., (Humphrey's British Moths, vol. i, p 122.) In this species the wings when spread are from an inch and a half to over an inch and three-fourths across. The fore wings are grayish brown, and are crossed by four equidistant wavy whitish lines, which are edged more or less with blackish. But commonly only the last one or two of these lines can be perceived; and the last line has a row of blackish triangular spots, like arrow heads, along its anterior side, their points directed towards the base of the wing. Often these spots are so obliterated that only one or two of the middle ones can be discerned in a particular reflection of the light. But it is by these spots more than any other character that I discriminate specimens of this species; for it is variable, with its marks obscure and more or less obliterated, from its wings when flying having been fluttered and rubbed against grass, leaves, &c., as is apt to be the case with most of the insects of this order.

Although more than a dozen other species of Dart-moths are known to me, the two now described will suffice as examples of the insects whose eggs produce the cut-worms. Though so common, they are seldom seen in the day-time, being then at rest, secreted in dark situations, such as the crevices in stone walls and the cracks under the clapboards of buildings. By looking behind the window-shutters of my office, at any time in July or August, I am able to obtain specimens of the Devastating Dart and one or two other less common species.

As to the best modes for subduing the cut-worm and guarding against its ravages, only a few words will be necessary, as this topic has been so often discussed in our agricultural journals. Commonly only one or two stalks in a hill of corn or beans are cut off, and the remainder is left unmolested, the worms appearing to require but one or two meals of this kind, just as they are on the point of changing to pupæ. It is well, therefore, to plant so much seed as will enable these depredators to glut their appetites without taking all the stalks in the hill. Observation has long pointed to this as a precaution which should always be taken. Hence the old rule as to the number of kernels which should be planted in each hill of corn—

"One for the black-bird and one for the crow,
Two for the cut-worm and three to grow."

But occasionally these worms are so numerous that active exertions must be put forth to save the crops from destruction. And general experience shows we have as yet only one resort which is perfectly certain and reliable, to wit, digging the worms out from their retreats and destroying them. To go over a large corn-field carefully, on this errand, and promptly as the exigency of the case demands, is quite a formidable task. Still, every one will perceive on a moment's reflection that when this measure is necessary to save the crop, the same amount of labor can scarcely be bestowed elsewhere so profitably.

It however is very desirable that some effectual and more speedy mode of combatting these insects should be discovered. So long ago as 1817, a notice in the newspapers stated that making a few holes about the hills with a sharp stick was an easy way to entrap these worms, as they would fall into such holes, and being unable to crawl out of them, would perish—some of the holes being found half full of worms thus gathered in a single night A writer in the *Michigan Farmer*, whose communication was fully noticed in the *Country Gentleman* of June 7th, 1855, bears strong testimony to the efficacy of this measure. From my own observations it appears that these worms are never able to crawl the length of their bodies up a perpendicular bank of earth, before they loose their foothold and fall. I hence presume the measure above spoken of will be effectual. Indeed, if my supposition is correct, that these worms mostly come from the surrounding fields, to the places where we notice them, I have thought that a single deep furrow, struck around the outside of a field or garden, when the worms are first beginning to appear—any break in the land-side of the furrow being repaired with a hoe—would form a barrier over which it would be impossible for them to make their way—thus protecting the whole field effectually and at a very trifling cost. I hope in one or two summers to complete my observations so that I can speak with more confidence upon this subject than I am able to do at present. ASA FITCH. *Salem, N. Y., Feb.* 20

WATERTOWN.—The citizens of this town have held a meeting, and resolved to accept the terms on which it is proposed to hold the next State Fair at that place. The necessary committees were appointed, and it is believed they will have every thing ready to complete the arrangements at the meeting of the Executive Committee in April.

Indian Wheat—its Value and Culture.

I noticed an inquiry, a few weeks since, in the Co. Gent, in regard to "Indian Wheat." This grain was introduced into this town about 23 years ago, from Canada I think; since when it has been constantly cultivated by some of our farmers, and now *nearly every* farmer raises it, although a very few, after trying it a year or two, discontinued it, some because they thought it would over-run their whole farm, and some because "the women" could not use it, neither of which do I consider valid objections. It will live in the ground over winter, so that it may be sown at any time from the harvesting of one crop to the gathering of the next; but we usually sow it after all the other crops are in, and harvest it before it is so ripe as to shell off from the straw—it being necessary to cut it when the dew is on. Our farmers often keep the same piece to Indian wheat for several successive years, and it seems to do as well so. If the soil is too rich, it "runs to straw" too much. The average crop is from 45 to 50 bushels to the acre, about the same as oats, although both often produce 75 to 110 bushels per acre on our soil. The average weight is about 48 lbs per bushel, and 16 to 18 lbs. of superfine flour per bushel. The canail I consider worth more per lb. than oats for stock; it is quite bitter and seems to act as a tonic, and sharpens the appetite much. I think this grain is worth full one-quarter more than oats for horses—possessing, to a good degree, the property of corn that makes *fat*, and that of oats that produces *muscle*

To a very *lazy* horse, I would feed oats in preference to any other grain; to one with too much *animation*, so as to be rather unmanageable in consequence, I would feed corn; but to our "Vermont horses" in general, for you know they are a little nearer *right* than any other, I would give "Indian wheat" in preference to all other grains, for economy or utility. For mixing with "cut feed," it is much preferred to any thing else. There is a great proportion of gluten so that it sticks remarkably well to the straw or stalks when wet.

For food for man it is also esteemed the most highly by those who have used it the most, being very palatable, nutritious, easy of digestion, and very handy to cook, either in the form of "Johnny-cakes," "Slapjacks," boiled or baked puddings—or any way to be eaten while *warm*, as it is so "light," when cooked, that it soon becomes dry. R. NUTTING. *Randolph, Vt.*

Orange Watermelon—How to Start Melons.

There has been so much said of late, about the Orange Watermelon, that I am induced to offer the genuine seeds to persons who feel disposed to try them, on receipt of their address, and a postage stamp for the return letter. The seeds from which I raised some of the finest melons I ever tasted, were presented to me by a friend who received them direct from Georgia. My plan for obtaining early plants, is, to construct a rude basket or wicker-work of willow or other twigs, something like a bird's nest, without the inside filling up. Make a hole in the soil of the hot bed of sufficient size to admit the basket; fill up, plant and cover the seeds, rake, and smooth the surface. When the weather is warm enough, and sufficiently settled to admit of out-side planting, I make my hills, and lift the little baskets containing the plants, and carefully remove them to their places, where they quickly strike through the open net-work of the basket into mother earth, and soon repay all trouble for giving them "a start in the world." E. J. MCCARTHY. *Saugerties, N. Y.*

Draining with Rails.

EDITORS CO. GENT.—In reply to the inquiry of "D. D." Winfield, Ind., I would only advise the use of rails in underdraining when tile or stone cannot be had. However, by charring the rails upon a brush fire, I believe they will last as long as some of the half burnt tile which I have seen, and which begin to crumble before you can get them into the ground.

The drain should be 30 or 33 inches deep, 18 inches wide at the top, and tapering to 8 inches at the bottom. Fill in with rough twisted rails 10 or 12 inches, and cover with a thin layer of straw, cornstalks or sod inverted, and your drain is then ready to be filled up with earth. You have thus the top of your drain below the reach of even the subsoil plow. If "D. D." can get rails, such as I have heard of in the west, so snarly and crooked that they wont lay still in a fence, all the better will be his drain, and the greater capacity will it give for the flow of the water.

Those who have had no experience in draining, will be surprised at the small space required to carry off the water in the most marshy land.

It is important to have a fall of at least one foot in a hundred, and also to fill up each day's work as you go, as exposure to even a slight frost or rain, causes the sides to crumble, and thus the solidity of the earth is disturbed, and the open space is liable to be filled up.

If "D D" is a practical man, he will learn much as he progresses, and will make each day's work an improvement upon the previous one. J. B. S. *Pittsburgh, Pa.*

The Oregon Pea.

MESSRS. EDS—In an editorial, headed "A Run through the Patent Office Report," in Co. Gent. Feb. 7th, it is said—"no reports of trials made in growing the Oregon pea in the more northerly states have yet been made public." This is a mistake. In the spring of 1854, I received from the Patent Office a package, each of the Oregon and Japan peas. I furnished an account of the result of my trial with them, for the *Granite Farmer*, which was published in that paper of Feb. 17th, 1855.

The two kinds of peas were planted on the 12th of May, in a warm, deep loamy soil; well sheltered from the north winds. They were frequently hoed; and about the 20th of September, they had grown some three feet high. The Japan pea had at that time, many clusters of pods, and some of the earliest were fit for shelled beans. The Oregon had just commenced blooming, when a heavy frost 25th of Sept., nipped them in the buds. Two of my neighbors planted the peas with precisely the same results. In Tennessee and Ohio, these peas may be fully entitled to all the praise they have received in the Patent Office Reports; but in New Hampshire, I think they are of no more agricultural value than the cotton plant or sugar cane. I planted on the same soil, and under the same treatment, several kinds of beans, peas, and early potatoes. These, all produced well; and had they been harvested for that purpose, they would have afforded much more forage for cattle and sheep—or much more material for plowing in, as green manure, than either the Japan or Oregon pea. The Editor of the *Granite Farmer*, in a *note* following my communication, says—"we distributed scores of packages of the peas referred to, and requested our friends to experiment with them in various ways. The result in no case was favorable, and we readily came to the same conclusion

expressed by Mr. Bartlett." There were two articles published last year in the *Rural New-Yorker*, on the Oregon pea, one from Michigan, and the other from some portion of western New-York, in neither case, if I recollect aright, did they mature. From the statements here given, I think it is not a suitable plant for these northern regions, nor is the Baden corn—yet the corn and the peas, do well farther south, and so does the sugar cane and cotton plant. L. BARTLETT. *Warner, N. H.*

Cheap Way of Underdraining.

The following, from Gen. HARMON of Wheatland, N. Y., we copy from the *New-York Chronicle*. It is practical, and to the point:

There is no one subject that demands more attention among farmers, than the underdraining of low and swampy lands. In passing through the farming districts, we see many large plats of land which are enclosed and the owners are paying taxes on, which do not yield annually the cost of keeping them. Now these useless acres could be made to pay the interest of one hundred dollars for each, annually, while the interest on the cost of improvement would not be one dollar an acre. Many have supposed, as their works show, that an open drain from twelve to eighteen inches deep and wide, is all that is required to make wet land productive.

In draining, the first step is to procure suitable tools for the business. Common drains should be dug fifteen inches on the top and three at the bottom, three feet deep on all soils free from stones. This size is the cheapest. If the banks are solid, the cheapest tile that I have used, is to lay in cedar, pine, black-ash, or any green poles that will go down within six or eight inches of the bottom; they should be stepped on and crowded down solid; then fill in one-third full of earth, pound it down firm with a paver's mallet; then fill the other third as before, and finish off.

One great difficulty in filling drains is, that the earth is left too loose, so that mice make holes which let in the water from the surface, which will soon spoil a drain that is made of stone, poles or brick. Water is carried under ground much cheaper than on the surface, and a field of several open drains is not good economy. When covered under ground, they may be plowed over and rendered productive. Where drains are needed in stony soils, the bottom of the ditch should be wide, so that one could stand and work in it; and stones laid so as to carry off the water. In some sections tile would be cheapest. No farmer who has wet lands should neglect to drain them because he cannot get tile.

Some plats of land are made dry by a ditch around them. Others will require several ditches through them. Such land, when made dry, will be the most productive. Carrots and potatoes will do well on such soils, and most of the spring crops. The grasses and hay from such soil will be worth twice as much as the same weight from lands that are too wet. If the wet lands which are enclosed in this State could be made dry, they would add millions to our farming products and our commerce.

Three spades are used to make narrow drains,—one common one, one blade five inches wide and fourteen long, and one five inches at the top and three at the end of the blade, handle five feet long, so that one can stand on the top of the ditch in taking out the lowest part of the earth.

PRESERVING EGGS.—A correspondent of the Southern Cultivator gives the following as a certain recipe: Grease fresh eggs with lard, and pack them away in a keg with alternate layers of corn or wheat bran, small ends downward, and so arranged as neither to touch each other or the sides of the keg. In this way they have been kept perfectly sound for twelve months.

Acclimating Seed Corn.

MESSRS. EDITORS—In your 6th no. of the Co. Gent. I find a piece from the Rural New-Yorker, in which the writer doubts the ability of corn to adapt and conform itself to the climate in which it is raised. My experience goes to prove that corn will become acclimated by planting it in the same location for a few successive years. I reside in lat. 42° 11″ north, and plant corn on mica or argillaceous slate soil, which, by the Trigonometrical Survey of this state, is about 1,600 feet above the level of the sea—consequently it must be cool.

I have often, for experiment, brought seed corn from low sandy land in Connecticut, that would barely ripen here the first season, but in a few years it would be early as corn that is usually raised in this vicinity.

I have also had seed corn from near Mount Monadnoc, New-Hampshire, which ripened earlier the first than the second years planting, but by selecting seed for a number of years, which every farmer can do, (that is the way by which Mr. Brown improved his King Philip corn,) from stalks that ripened first and produced from two to three ears, I have a variety in my opinion equal to any other.

When I first commenced planting this kind of corn, it was all flesh colored or brown, like the King Philip. Now about half of the ears are yellow. I have compared many of the brown ears with my King Philip corn raised last season, the seed of which I received for the Patent Office, but could perceive no difference in color or general appearance, which is one reason of my proposing to part with a variety the seed of which so many are anxious to obtain. I do not think so much of the name, as of a kind of corn that will ripen early, and yield most in proportion to the size of the stalks.

Therefore permit me to say that those farmers who lost their corn by the frost last year, may, if they will only obtain seed corn that was grown on high land and from a latitude north of their present location, be almost sure of a variety that will ripen before the autumnal frosts. W. E. BOISE. *Blandford, Mass.*

Profits of Poultry-Keeping.

MESSRS. EDITORS—Being not only a subscriber, but a reader to your excellent paper, and observing results of trials in the culture of poultry of different kinds, I commenced on the first day of January, 1854, with six pullets and one biddy of the Shanghai variety, which cost six dollars. I enclosed an eighth of an acre, and reserved one-half for pasture, (by a division fence,) to feed as I choose; the other half was occasionally plowed. They were fed with corn, oats and meal, until the 1st of January, 1855, which feed cost $19 96.

The following statement gives the cost of stock, feed and nett gain:

Dr—To 7 fowls,		$ 6.00
Feed,		19.96
Nett gain,		62.44
		$88.40
Cr.—By eggs and chickens,		$73.40
Fowls on hand,		15.00
		$88 40

The above statement, Messrs Editors, I think is calculated to induce those occupying small farms, to favor the raising of poultry as a means of profit, in preference to some other kinds of stock that require more care, more feed, and furnish less nett gain, for the amount invested. A BOY. *Burlington Co., N. J.* [This statement would have been more valuable, had the writer given the prices at which the eggs and chickens were sold.]

Bloody Murrain in Cattle.

MESSRS. EDITORS—In the Jan. No. of the Cultivator, there is a communication from J. M. JESSUP, concerning the Bloody Murrain in cattle. I know nothing about the disease from my own observation, as it is very rarely seen in this part of the country; but in looking over a volume of the Memoirs of the Philadelphia Society for Promoting Agriculture, published in Philadelphia in 1826, I find letters to the Society from a number of farmers, giving their opinions as to the cause, cure, and prevention of that fatal disease. A number of cattle were opened after death, and in all cases the manyfolds were found filled with dry food, and very much swollen. No other part of the abdominal contents showed any signs of disease, except the gall bladder, which was surprisingly distended. They appeared to think, as Mr. Jessup did, that they have an appetite to swallow more food, than the powers of the stomach can digest, which causes a stagnation. I think from what I have read about it, this is the true cause.

In the above Memoirs there is a letter from Benj. Harrison of Virginia, giving a cure for it, which he verily believes will cure nineteen cases out of twenty. It is simply this: Drench the animal with an infusion of cedar berries, generally about a quart of the infusion, together with half a pint of the berries. It may be necessary to repeat the drench four or five times. He also gives a preventive. It is a mixture of clay, salt (in the usual proportion for stock,) tar and powdered brimstone. For fifty head of cattle, one gallon of tar and half a pound of brimstone per week, put in a trough to which the cattle had free access.

A friend tells me he has known the above remedy tried in a few cases, and that it relieved the animal in a short time. The remedy is so simple that it ought in all cases to be tried, where the berries can be procured. It may be the means of saving the lives of many fine cattle. J. W. LEQUEAR. *Kingwood, N. J.*

MESSRS. EDITORS—I noticed a few weeks since, an inquiry for a cure for the bloody murrain, and will tell you what has proved successful here.

Take two lbs. of epsom salts and six oz. tallow, and pour enough boiling water on to dissolve it—then let it cool sufficiently, and give one third of it for a dose. If the animal is not better in six hours, give one half the remainder, and if not better in six hours more give the rest. One of our neighbors, an Englishman, told me that the above would effect a cure if given before the blood turned black. I tried it by heating the water until it would melt the salts and tallow, and then gave it, but lost two or three animals, when I saw a recipe in the Prairie Farmer, given by him, which said pour "*boiling water*" on, since which time I have not lost a case, and I think it a sure remedy when given soon after the attack. ASA HOWES. *Oak Creek, Wis.*

One Way to Keep Eggs.

During a long voyage to South America, it was noticed how fresh the eggs continued to be. The steward was called on for his secret. He said that as he purchased his stock, he packed it down in small boxes—raisin boxes—and afterwards, about once a week, turned over every box but the one out of which he was using. This was all. The reason of his success is, that by turning the eggs over, he kept the yolks about the middle of the albumen. If still, the yolk will after a while find its way through the white to the shell, and when it does so, the egg will spoil. Hens understand this fact, for they, as is well known, turn over the eggs on which they set at least daily. E. S.

Ingredients for Different Paints.

MESSRS. EDITORS—Will you have the kindness to answer through the columns of the Country Gentleman, what ingredients it requires to make the following Paints: Red, Yellow, Lead, Slate, Blue, Green, White, Brown, Stone and Black, and much oblige, W. W. H. *Middletown, Ct.*

Although there are many shades of most of the colors embraced in the above inquiry, and many different materials from which they may be made, we shall confine our answers to those in most general use.

A *bright* red, may be made of red lead; and a red of a *darker* shade, of Venitian red.

The best light yellow, is made of chrome yellow, and a darker and inferior color, but *very much* cheaper, of yellow ochre.

Lead color is made of white lead, with a very small portion of lamp black added.

Slate color, same as the lead color, with the addition of a little blue.

Green may be made of *various shades*, by mixing in different proportions, either of the yellow above mentioned with Prussian Blue, or strong and handsome greens may be purchased in the form of Chrome green and Brunswick green.

A *very dark* blue, approaching black, is made of pure Prussian blue, and any shade of lighter blue by the addition of white lead in different proportions.

For white, use pure white lead.

A cheap brown may be made from Spanish brown, and browns of various shades from mixtures of black and red.

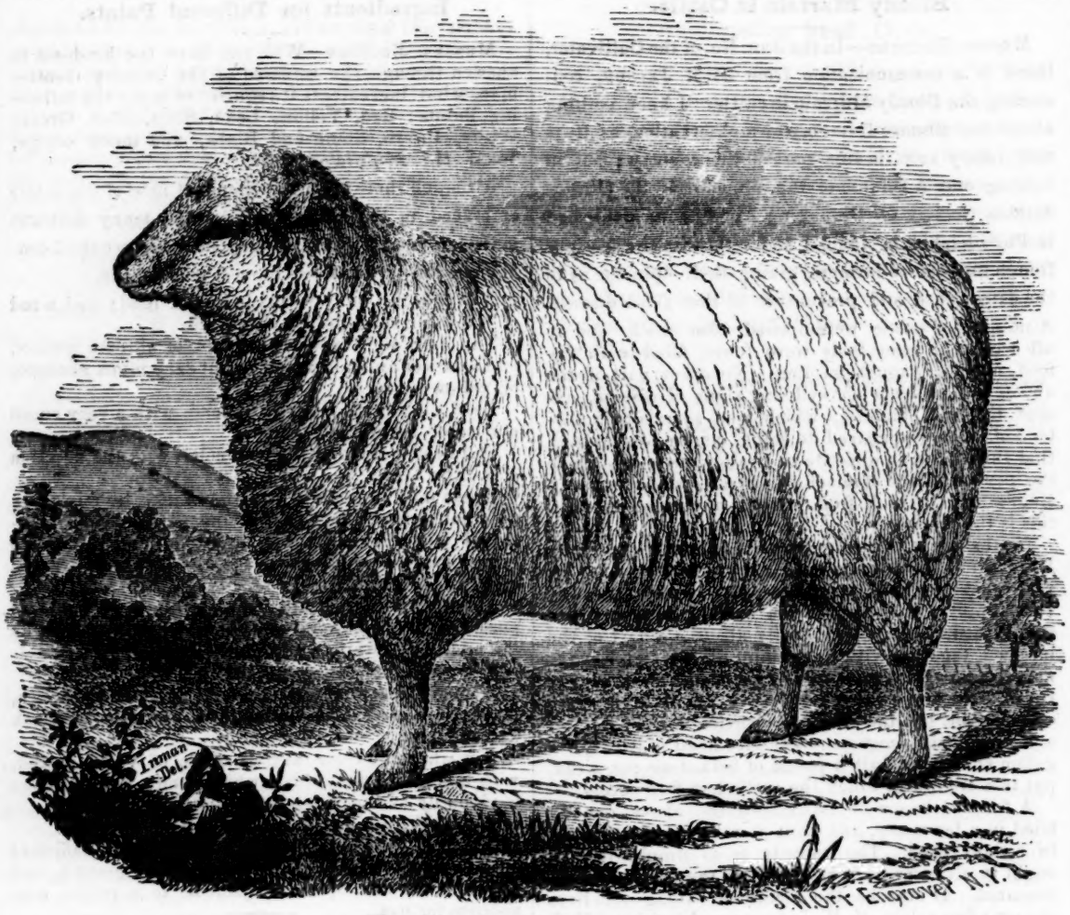
A warm stone color may be made of Venetian red, with the addition of a little white; and a colder shade is given by adding lamp black and more white.

For black, use best calcined lamp black.

Either of the above should be mixed with sufficient linseed oil to enable them to be easily ground, and then thinned with spirits turpentine to a proper consistence for use.

A Model Orchard.

At Nyack, in the county of Rockland, and state of New-York, is an orchard containing about one hundred trees, consisting entirely of the green Newtown Pippin. This orchard was planted some fifty years ago by Mr. Van Houghton. The trees are planted in squares, 40 feet apart each way, and having now apparently obtained their full growth, they show this to be a suitable distance, at which to plant trees for a permanent orchard. Each tree has sufficient room, so that their limbs do not die off for want of sufficient influence of the sun. Trees which are planted only 33 feet apart, on a strong soil, will branch out so far each way, when they have nearly attained their full growth that some limbs will die off for want of room. The soil on which this orchard is planted, does not appear to be of the strongest kind, but is rather peculiar. The black walnut and cedar grow upon it in close proximity. Nevertheless, by careful cultivation and manuring the trees have attained a more than common size and thriftiness, being from 20 to 24 inches in diameter, and some of them yet larger, at 3 feet from the ground, with large spreading tops; and is uncommonly even as to size of the trees. During Mr. Van Houghton's life, he was careful to apply sufficient manure, and to cultivate this orchard annually with pigs, so as not to let the grass grow too freely and prevent the full growth of the trees. Since his death, his successor uses it more for cattle pasture, and some of the trees now show symptons of decay. Mr. Van Houghton's method of cultivation is doubtless one of the best which can be devised, and the orchard which he has produced is a full proof of it. H. J. CANFIELD. *Mahoning Co. Ohio.*



Yearling South Down Ram.

The Yearling South Down Ram "Toney," bred by Jonas Webb—winner of first prize at the Fairs of the New-Jersey State and Somerset Co. Agricultural Societies—also a winner at the Show of the United States Agricultural Society at Boston, Oct, 1856—the property of GEORGE HARTSHORNE of Rahway, New-Jersey—presented to him by ANTHONY G. ROBINSON, London.

Profit on Pigs and Poultry.

MESSRS. EDITORS—During the nine years that I have pursued farming, I have kept accounts with farm stock, and with the products of the farm, and find it beneficial in many respects.

I herewith send you my accounts with poultry and swine for the past nine years. My poultry I charge with their worth at the commencement of the year, with the food they consume during the year, and the mischief they do about the premises, and credit the eggs they lay and the worth of those killed during the year, with the worth of those I have at the close of the year.

Abstract of account with hens:

Year.	*No.*	*Cost.*	*Worth*	*Profit*
1847.....	—	$17.25	$25.68	$8.43
1848.....	—	26.64	36.87	10.23
1849.....	—	23.11	45 59	22.48
1850.....	—	27.80	41.64	14 84
1851.....	34	36.05	53.10	17.05
1852.....	60	57.66	89.69	30.03
1853.....	67	69.45	91.57	22.12
1854.....	78	58.19	86.69	28.50
1855.....	70	74.09	82.67	8.58

Gain in nine years,.....$162.26

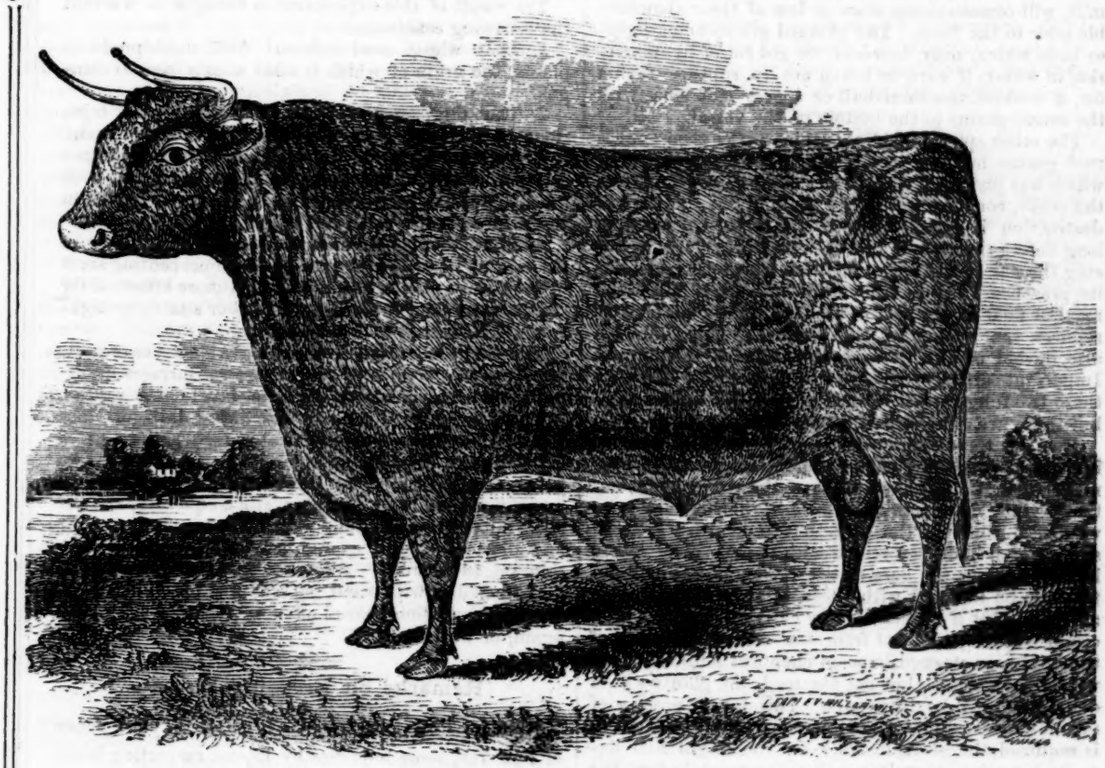
I have no record of the number of hens for the first four years.

I charge the swine their cost when I buy them, what grain they consume, and five or six dollars for the skim milk from each cow I keep, and credit their market worth when slaughtered, allowing their manure as an offset to care and attention while fattening. My loss on swine I attribute in part to not keeping sufficiently well in the summer season, and consequently not slaughtering early enough in the winter, and partly in not paying sufficient attention in selecting pigs. Generally have taken spring pigs and killed in the winter. Abstract of account with swine:

Year.	*No*	*Cost.*	*Worth.*	*Profit.*	*Loss*
1847.....	3	$30 97	$43.79	$12 82	
1848.....	4	60 00	46.40	.....	$13.60
1849.....	5	93.47	76.75	.....	16.72
1850.....	12	131.92	104.46	.....	27.46
1851.....	4	56.99	53 00	.....	3.99
1852.....	4	107.06	98.22	.....	8 84
1853.....	4	115.64	101.04	.....	14.60
1854.....	3	66.74	55.68	.....	11.06
1855.....	3	58.55	65.00	6.45	
				$19 27	$96.27

Loss on the nine years, $77.

Here you see is a wide difference in the result in keeping two descriptions of farm stock; and without *facts* and *figures*, how can the farmer know whether he is gaining or losing from year to year in his farm operations? MILNER CASE. *Avon, Ct.*



Devon Bull Baltimore,

Which took the first prize of the N. Y. State Ag. Society in 1847—bred by H. N. Washbon of Morris, Otsego Co., N. Y.—the property of J. W. COLLINS of Sodus, Wayne Co., N. Y. Sire, Eclipse, (191)—imported by Mr. Patterson, from the herd of Mr. Bloomfield, of Warham, Norfolk, England—gr. sire, Willingham—dam, Rose of Baltimore, bred by Mr. Patterson, from Anchises, (140)—see Davy's Herd Book.

Chloride of Lime as a Remedy for Smut, &c.

A paper was recently read before a botanical society in Dublin, on the use of a solution of chloride of lime as a steep for wheat, and a remedy for smut. Some years ago, the writer of the communication read before this society, Dr. Steele, instituted a series of experiments, in which he was eminently successful in establishing the fact that chloride of lime was almost a specific in the prevention of smut in wheat. Various parties who had tried it have written to Dr. S. letters confirmatory of the above-named result of his experiments. The most instructive and interesting portions of the paper or lecture, read by Dr. S., we herewith lay before our readers, as it contains a great deal that is of little or no interest to practical men, and as it would occupy several of our pages if copied in full.

Of the nature, causes and cure of the various blights which attack their grain crops, but few among the growers of these crops know anything; and what little knowledge the better informed do possess, is vague, unsatisfactory, and useless for practical purposes. Nevertheless it requires but a little knowledge of the *nature* of these blights to banish all doubt and difficulty as to their mitigation or prevention, and to enable us to apply rational remedies for the cure of the disease.

The blights or fungi, attacking grain, are somewhat analogous to those diseases of animals which consist in the development of one class of living animals within the bodies and organs of other animals; such as worms in the intestinal canal, in the liver and spleen, in the brain of sheep, &c, &c. Analagously to these we find the internal parts of plants infested with other minute plants, produced, growing, and propagating their kind within their living habitations. Plants are found to be subject to diseases caused by the presence of other plants which have established themselves in their interior structure. The disease-plants belong, for the most part, to the tribe of fungi, the most striking characteristic of which is, perhaps, their sending forth myriads of scarcely perceptible sporules or seed-dust, to float in the air and start into life wherever they find an appropriate soil. The blights which affect grain crops, known to farmers by the names of bunt, smut-balls, pepper-brand, dust-brand, rust, red-gum, mildew and others—have been long kuown by botanists to be caused by the presence of certain fungi, of a definite size, figure and organization, and possessing character which distinguish them from each other. While some exclusively attack the leaves, others attack the straw, others the chaff, and others as exclusively prey upon the grain.

Of the fungi which prey upon the grain or seed, there are two distinct species. One of these is found to prey exclusively upon the grain of the wheat; the other rarely attacks wheat, but is extremely destructive to barley and oats. Both are commonly called smut. On breaking a smut-ball in the fungus which attacks wheat, it is found to consist wholly of a dark brown powder, having a most disgusting odor, almost undistinguishable from stinking fish. If a little of this dust be examined by the microscope, it is found to consist of a number of minute balls.

The grains attacked by this fungus are seldom shed, and scarcely ever burst spontaneously. They not unfrequently escape being ruptured in the process of threshing, and if not removed before being sent to

mill, will communicate more or less of their abominable odor to the flour. The affected grains being lighter than water, may, however, be got rid of by immersion in water, if care be taken not to rupture them; for, if broken, the smut-ball or spores will sink with the sound grains to the bottom of the vessel.

The other species of blight which preys upon our cereal grains may be easily distinguished from that which has just been described. Instead of being, like the other, confined within the grain or ear, its work of destruction is completed, and the spores dissipated, long before the ripening of the crop, previously reducing the ear to the sooty condition which characterizes its presence. Unlike the other it cannot affect the meal or flour of the grain, though it very materially reduces the amount of the produce. This fungus is also devoid of the disagreeable odor of the former. Important differences are also perceptible between these two fungi, when examined with the microscope; but these are of no importance to agriculturists.

How are these blights or fungi propagated? This is a question of the greatest practical importance. In reply to it, we find the author of the paper under notice saying, that no circumstance in their history is so well established as the fact that if healthy seed be sown, which had been mixed with the spores of either kind of fungus, the ears of the future plants will be found to be affected with these blights respectively; and also, that if (what we may call) infected seed, be either carefully cleaned from the adhering spores of the blight, or steeped in some chemical solution which will kill the spores, but not the seed, the plants will in due time bear healthy ears. This latter process of pickling or dressing, or putting the grain into a steep, is required almost exclusively for the blight first described, as the other is usually dispersed before the crop ripens. The former remains in the ear, and by being threshed with the crop, contaminates the whole. It is, therefore, for the purpose of preventing this form of blight that steeps are generally employed.

Whenever blighted grains exist in a crop of wheat, it must be that some of them get broken, and their contents mixed with the grain. It cannot be safe to use any of such grain for seed, without using means to destroy the vitality of the fungus. This has been attempted in various ways. In some districts the practice has prevailed of immersing the seed for a short time in very hot water. This plan will answer the purpose very well, if care and good judgment are exercised to save the seed itself from injury. In various places, and by sundry persons, steeps have been used, made from lime, blue-stone, corrosive sublimate, white arsenic, to which may be added a mixture of sulphate of soda and quicklime—a dressing or steep highly recommended by a French commission, which inquired and reported on the subject.

Some years ago it occurred to Dr. Steele to apply a solution of chloride of lime to the spores of the wheat fungus or smut. The offensive smell, so characteristic of this fungus, was immediately destroyed, and after a few hours the spores were ruptured and disorganized. Encouraged by this he instituted experiments like the following. He took 4 lbs. of the finest and cleanest wheat seed, and set apart 1 lb. of it without any preparation. The remaining 3 lbs. or parts he mixed equally with a large quantity of the spores of the smut or bunt fungus, until the whole was rendered a uniform brown color. One pound of this infected seed he then steeped for two hours in a solution of chloride of lime, (1 lb. of the chloride to 1 gallon of water,) and dried it by sifting fine sand over it. Another pound of the infected seed was steeped for two hours in a saturated solution of sulphate of soda, (Glauber's salts,) which was dried by sifting over it a little fresh-slaked quicklime The fourth part or pound was not subjected to any treatment. These four parcels of seed were then sown in four separate plots of ground.

The result of this experiment is thought to warrant the following conclusions:—

1. That wheat seed infected with smut produces plants, the grain of which is filled with a similar fungus.

2. That the presence of the smut or fungus is injurious to the straw, as well as destructive of the grain.

3. That steeping the infected seed in a saturated solution of Glauber's salts, and sprinkling it with quick-lime, has but little effect in preventing smut in the future plants.

4. That steeping the infected seed in a solution of chloride of lime, is nearly a specific in preventing smut in the future plants, and very much more effectual for this purpose than the steep of Glauber's salts, so highly praised by a French commission.

The chloride of lime has, during a few years past, been used as a wheat-steep by several farmers in different districts, and with the same satisfactory results.

The solution used is made by mixing 1 lb. of chloride of lime in one gallon of water, (soft,) stirring frequently with a *stick*, or something *wooden*, for two hours, or till dissolved. Put the grain to be steeped into a large quantity of water, stir frequently, and remove all the grains that swim. Pour off the water and add to the seed enough of the chloride of lime solution to cover it. Allow it to remain two hours, and then dry with sand, mould, lime or other powder. The solution poured off may be used again and again, or while it lasts.

Remarks on Breeding Horses.

EDITORS COUNTRY GENT.—I notice in your paper of Feb 7th, some inquiries by Equus, respecting horse breeding. Having been a close observer for a number of years, and having followed raising-colts to some extent for ten years past, I will simply state what I have learned from these sources. I do not exactly understand whether he desires to know at what age to *commence* or only *to* what age he may rely on mares breeding; but I will state my opinion of both. Mares that have been well treated while young, (that is, not allowed to get stunted in growth,) may be used at three years old; but as a general rule, four is early enough to commence breeding them. From this age, good mares may be bred every year, if due care be paid to feeding, and not over-working them, till they are twenty years old. Beyond this age, they cannot be relied upon with much degree of certainty to breed, although in many instances they do, but it is by no means a general rule.

In answer to the inquiry, whether ringbone, spavin, or any other disease is hereditary, I answer, that I am fully convinced some diseases are. Many years ago there was brought to this country a fine stallion, said to be a high blooded horse. He was stone blind, and the person who brought him here solemnly declared that it was caused by a severe blow between his eyes. This declaration, together with the fine form and graceful action of the horse, induced many of our farmers to breed their mares to him. But in a few years they saw how sadly they had been bitten; for a great number of his colts were either weak eyed, or went entirely blind, without any "*blow between the eyes*," as no doubt their sire did before them. Some of his colts were kept for stallions, and the same is as true of *their* posterity. I consider this proof-positive that blindness is hereditary in the horse.

Another disease has come under my observation, which satisfies me that it, also, is hereditary. It is what is called in Hoosierdom, club-foot, and I have

seen instances of it springing from the sire, and others from the dam. I well know some deny this being hereditary, and argue that it is caused by the colt traveling on hard ground about the time the first hoof is growing off, and breaking, or wearing the foot sore, which causes it to stand on its toe, till its foot grows strait or turns under; but certain I am that there is a greater disposition in colts bred from club-footed parents to get *sore feet*, than there is in any others. So strongly am I convinced of the truth of this, that I would not breed a mare to a blind or club-footed horse if I considered him perfect in ever other particular.

With regard to ringbone, or spavin, I am not posted, but my opinion is that they are in some degree to be feared. If I owned a mare with either of these blemishes, I would not stop breeding her, unless I found by experience that she entailed the disease to her colts; but I should not run the risk of breeding a clean limbed mare to a stallion with these blemishes.

If Equus is about to enter into horse breeding, I would advise him to obtain good young mares, say from four to six years old, even if they cost him more, and then they are fit for both raising colts and work, and he will be saved the expense of keeping other horses to perform his farm labor. The colts may be easily learned to lead by their dams with halter, and thus save much annoyance to their master, and they will not be half the trouble to break when they are thus tamed. PLOUGHMAN. *New-Albany, Ind.*

MESSRS. EDITORS—I will answer the inquiry of your correspondent in regard to breeding horses. He asks to what age mares may be used for that purpose. This question I think cannot be correctly answered, as there are some mares that will not breed after they are fifteen years old; others will breed till twenty-five years old. Twenty-two is about the usual age for mares to stop breeding. I have one that is twenty-seven years old in May, '56, that has raised six colts since she was twenty years old. I think that it is a mistaken idea that the colts of old mares are more liable to blindness or other diseases, than the colts of young mares.

I know that ringbone and spavin are both frequently hereditary; also blindness, or what is called lunatic eyes.

I will inform your readers how to prevent bots from injuring horses: Take a bundle of rye, cut it up very short, say one-fourth of an inch; mix with wheat bran, and wet it; add half a tea-cup of sugar, half an ounce of alum, and give the horse a feed of this, once every three months, and he will never be troubled with worms. H. H. ANDERSON.

Working Oxen of Maine.

MESSRS. EDITORS—Mr. Greenlief Spauldin of Strong, Franklin Co., Maine, owns a pair of steers, two years old last May, which girt 7 feet 3 inches each. They are remarkably well formed and well proportioned cattle—are of the Durham breed, and were raised in this vicinity. They have had no grain or extra keeping thus far during the winter, but have been fed entirely on hay and oat straw, and have been regularly fed, kept warm, and been turned out of the barn a short time each pleasant day. They are well broken and have been accustomed to work.

Mr. Spauldin has another pair of the same age, which girt 7 feet each. They are also of the Durham breed. It is thought that in no part of the United States has so much attention been paid to the raising of fine working oxen as in Maine. The great numbers employed in the lumbering business, the very best being usually selected by lumbermen for the purpose, has stimulated farmers to take great pains in raising them.

Your friend the late Gov. HILL, who delivered an agricultural address here some 12 years since, afterwards remarked in his Monthly Visitor, that he saw in this part of Maine the finest working oxen he had ever seen anywhere. H. B. *Farmington, Maine.*

Poudrette and Night Soil.

COMPARATIVE VALUE OF POUDRETTE.—I have read with much interest, your excellent article in the last No. of Co. Gent, on "Preparing Soil for Gardening." Late in the fall, just before frost set in, I trenched, two spade deep, about half an acre for gardening—in doing so turned up much yellow sub-soil. In the spring this is to be thoroughly spaded over and manured. Now as it is difficult to get a supply of barn-yard manure without drawing it a great distance, I wish to know if the same amount of money expended in the Lodi Company's Poudrette, would do as well spaded in. If so, it will save great expense and trouble of carting, &c. W. B. B.

Night-soil, which forms the basis of poudrette, contains the elements of fertility many times more concentrated than in common yard manure. We are not able, however, to inform our correspondent what proportion of the Lodi Company's poudrette consists of the absorbing and dessicating materials applied in mixing with the night soil, and lessening its strength. A ton of well made and strong poudrette should be fully equal to ten tons of ordinary manure. (In its extreme concentrated form, it is said to have been equal to thirty loads.) By ascertaining its price, and cost of transportation, and also the cost of the manure and drawing it, our correspondent may perhaps arrive at a tolerable estimate of the comparative value of each.

The experiments which have been made for comparing their value, have greatly varied in results, from two important causes. 1. The poudrette may be of various degrees of richness, for there is nothing but analysis, or careful experiment, to show the purchaser how much foreign matter is added in its manufacture.

2. The manure may be applied so as to give widely different results with the same quantity; if thrown in large lumps upon the ground and imperfectly plowed under, it will not be more than one fourth or one fifth the value of the same manure finely pulverized and thoroughly intermixed with the soil, by repeated harrowing and plowing so as to form a fine, uniform mixture.

MANAGEMENT OF NIGHT SOIL.—Will you inform me what is a good decomposer of night soil? And if it may be used to good advantage upon carrots, or upon what produce would it be most profitable to use it? In using it for vegetables, would you top-dress it or harrow in? E. M. B. *Glenham, N. Y.*

Night-soil undergoes ready decomposition of itself. Perhaps our correspondent means to ask for a suitable absorbent for composting it. If so, we would recommend pulverized charcoal, or dried peat, or dried turf or loam. The compost thus made may be used advantageously for carrots, and should be well worked into the soil by plowing and harrowing. If top-dressed or only harrowed, it only benefits the top roots. It must be diffused all through the soil.

TO MAKE MACASSAR OIL.—The ingredients of which it is composed are the most simple and economical. The following, we are told, is the genuine recipe: Take 1 quart of olive oil, or fine lard oil, 2½ ounces of spirits of wine, 1 ounce of cinnamon powder, 5 drachms of bergamot. Heat them together in a large pipkin, then remove it from the fire, and add 4 small pieces of alkanet root; keep it closely covered for six hours, let it then be filtered through a funnel lined with blotting or filtering paper.

That "Model Dairy Farm."

MESSRS. EDITORS—Your publication of the statement of Mr. Coffin's success as a dairyman, seems to have stirred up quite a breeze among the butter makers. While there was but one man in the field claiming the prize, I felt but little interest in claiming it, more especially as Mr. Coffin had already pocketed the premium. When Mr. Shepard entered the field, the sport became interesting; but when the Vermonter came down from his green mountains, with an apparent determination to have the prize, right or wrong, the sport became too exciting to "hold on" any longer without entering my nag for the race,—"so, here goes"

I may as well say in the start, I suppose, that I am not the owner of a farm, but that I have the privilege of superintending one, of one hundred acres. It cost, three years ago, $25 per acre, and was what was called, a "*hard run*" farm. Our cows are full blooded—*natives!* and cost from $25.50 to $35,50 per head.*

As our cows did not all come in until the first of June, we will start at that time with six cows. From that time till the first of January—seven months—we churned 1227 pounds and seven ounces. But during this time we had the milk of the seventh cow one month and a half. But as we have had from ten to fourteen in the family all the time, (never less than ten,) I think the one cow, a month and a half, but a small offset for the milk used in the family.

Now, as the pork and calves seem to be a sort of bone of contention between the parties already in the field, I will drop those items in the account and see how the books stand on the butter and cheese alone.

First, then, we have Mr. Coffin of Dutchess county, who kept five cows:

838½ pounds of butter at 21 cents per lb.	$176.08
Milk in family,	12.84
	$188,92

Which is $37,78½ per cow.

Mr. Shepard of St Lawrence Co., is the next claimant, with six cows (and challenges the state to produce six better ones.) He made,

Butter 795 lbs. at 21 cts.,	$166,95
Cheese 135 lbs. at 10 cts.,	13.50
Milk used in family,	6,08
Making,	$186,53

Or $31,09 per cow.

Neither of these men say at what market they sold or what it cost to market their products.

Mr. Arms, of Montpelier, Vt., with seven cows, does *not say how much* butter he has made, though this should be the fair trial point of good cows. But he sold of

Butter, from 22½ to 30 cts. per pound,	$167 43
Cheese at 11 cts.	138,87
And charges for milk used in family *five quarts per day*, at 2 cts.,	21.40
	$327,70

Or $46,81 per cow.

What his butter would have brought him at 21 cts. should have been stated, and, as he says, "what it cost to market it." He sold near a city market, but had to cart it "*as fast as made*," (we churn every day,) four miles to the depot; whether he did this every day or every week the deponent saith not.

Now for our statement: six cows, same number of months as Mr. Coffin's, butter 1227,07 at 21 cents, $277,77—or $46,29 per cow.

But, in addition to this I may state, that we sold our butter at home with no cost of transportation and at a trifle over twenty-four cents, which would bring the figures up to $49,10 per cow!

So much for butter, alone. Mr. Arms says 100 lbs. of pork cannot be made from the skim-milk of one cow. That depends upon the kind of hogs he keeps. If he keeps the regular *land-shark breed*, and two or three to a cow, he is right. But I can show him the cows and pigs that will do better than that.

One word about the feed. St. Lawrence County it is well known, is a great county for grass. Mr. Coffin of Dutchess Co., says that by treating his meadows to water as he does his pastures, he cuts by the last of June, *three* tons of hay per acre. And in addition to his good pastures and plenty of them, he fed to his cows 20 cart loads of pumpkins.

Our cows had no pumpkins, no roots, and no grain except the bran from 10 bushels of floured buckwheat. They were pastured on an old meadow; some of it so poor the year before, that it was not worth mowing, scarce as fodder was, and what was mowed, yielded scant a *half ton to the acre*. The great yield of butter, I ascribe to the good cows and *our wife*, the good dairy maid. M. FREEMAN. *Root, Mont. Co., N. Y.*

P. S. Since writing the above, my attention has been called to the fact that Mr. Shepard only threw in his claim for 152 days, instead of seven months. This is taking the best of the season, but still Mr. Shepard comes behind.

His cows bring him for the 152 days for butter, cheese and milk in family $31,09 a head, or 20 cents and six mills per day. Ours, for the 214 days bring us, at only 21 cents for butter, $46,29 per head or 21 cts. 1 mill per day, and at the price we sold our butter (24 cts.) a fraction short of 23 cts. per day.

But start on the 15th of June with Mr. Shepard, and for his 152 days, our butter book shows 950 lbs. During this time, however, we had the use of the seventh cow as before stated, for a part of the time, (she was an old one that we bought for $15, to fat,) but allowing that we milked her all the time and allow us but $7, for milk used in family, and our cows then yield us $33,57 per head; which beats Mr. Shepard $2,48 per head.

Thus, you see, we have beat the "Model Dairy of the Empire State;" left the Green mountain nag far in the rear and come out several lengths ahead of Mr. Shepard who challenged the State!

Our butter book was kept by a boarder in the family, he being entirely disinterested, and the amount each day made set down by itself.

It may not be amiss, perhaps, to state, that the whole amount of butter made from the time the cows began to come in, in April until we dried them off, was 1406½ pounds. So much for *natives!* M. F.

Our correspondent labors under a mistake in calling Mr. Coffin's a "Model Dairy Farm." No such claim has been set up for it; nor indeed, is it a dairy farm at all.

* Should not the market value of the stock and land be an important point in these investigations to show the largest income from a given capital?

Products of Dairies.

MESSRS. EDITORS—I find in your paper of Jan. 3, a communication from A. D. ARMS, on the products of a dairy of seven cows, from which he made, in butter and cheese, some $46,81 to the cow—the butter selling at from 22 to 30 cents, and the cheese at 11 cents per pound, which is doing well; but I think the man with whom I am boarding, has done better. He has kept an account of what he has sold—cheese at 9 cents and butter at 21 cents—which foots up $325, from eight cows, making no account of the butter and cheese which a family of six persons eat and what they reserve for winter use.

I wish you to invite the attention of farmers to the subject of keeping an accurate account of all farm expenses and income that we may come to some definite conclusion whether farming is profitable or not. F. F. S. *Cicero, N. Y.*

PLEURO PNEUMONIA IN ENGLAND.—We are sorry to learn that this fatal disease has broke out in Lord Leicester's celebrated herd of Devons, and that some twenty of the best cows have been lost.

Inquiries and Answers.

GRAVEL HOUSES.—I had some thoughts of trying to erect a building in the approaching summer, of gravel and lime, as directed in the little book, entitled, "Home for All," by O. S. Fowler of New York, but on turning over the pages of the Cultivator for 1854, I find in the May No., page 144, that you cannot recommend the plan. I have recently seen several buildings built on the plan, which answer admirably; and as I have abundance of material at a trifling cost, I am unwilling to forego the experiment, except on satisfactory assurance that there is some radical defect in the method laid down for procedure. Would it be asking too much from you or some of your correspondents to favor me with their objections. J. L. *Montreal.* [There is no "*radical* defect" in this mode of building—but failure is very apt to occur from impure and imperfect material, imperfect construction, want of experience, and careful exclusion of water from access to the walls. These causes are so frequent that we cannot recommend the general adoption of this mode of building. But as they have evidently been avoided in the cases mentioned by our correspondent, he may confidently carry out his intentions, taking care to secure all the requisites accompanying the successful experiment.]

KING PHILIP OR BROWN CORN.—*J. F.* This corn, if we remember correctly, was first introduced to the public notice in 1839 or 1840, by the late Gov. HILL of New-Hampshire. It received its original name of "Brown Corn," from a gentleman of that name who first cultivated it on an Island in the Winnipiseogee lake, and whose crops of it produced over 100 bushels per acre. It was at that time introduced into various parts of the northern states, and was, we believe, considered a valuable and productive early variety. It seems from a statement published in the Patent Office Report for 1853, that the "Improved King Philip or Brown Corn," distributed by the Patent Office the last year, was from the same source. Mr. Brown says the improvement was made by a careful selection, for a succession of years, of well filled ears, with cobs having small but-ends, of good length and uniform size, and from stalks bearing more than two ears. Mr. B. plants it very closely—the rows 3 feet apart, and 2 feet apart in the rows. For seed, see advertisement of WM. THORBURN, in this paper.

GRAIN REAPERS.—*B. T., Va.* A trial was made in Illinois, (if we remember correctly,) between Manny's and Atkins's reapers, and the premium awared equally to each. We do not recollect any trial between Palmer & Williams's reaper, and Atkins'. Doubtless P. & W. can furnish authentic information of the trial. We have not had sufficient opportunity of witnessing accurately conducted experiments by these different machines, side by side, to speak with confidence on their relative merits.

SEED PLANTERS.—*H., Waukesha, Wis.* Emery & Brothers of this city, manufacture an excellent drill for sowing small seeds, such as onion, carrots, &c., in drills—price $6. They also make a larger planter on the same plan, which can be used for both large and small seeds, as onions, corn, beans, &c. It will plant either in hills or drills, and may be drawn either by man or horse—price $14. We presume both can be had of H. D. Emery & Co., Chicago.

WIND POWER FOR FARM-LABOR.—Our correspondent P. M. KENT, of New Albany, Indiana, (whose communication was delayed some weeks by an accident,) inquires for the best windmill for farm purposes—his farm consisting of 2000 acres mostly under cultivation. We do not possess any new information, not already given in back numbers, in relation to Halliday's windmill, which has now been in operation two years, and so far as we can learn, has given good satisfaction. Until it has been well tried by farmers, its precise value cannot become established—and this cannot be the case unless those who lead improvements and enterprize are willing to run some risk of its entire success. For a farm as large as that of our correspondent, perhaps a steam-engine may answer the best purpose.

ROT IN PLUMS.—I have about 25 fine plum trees, which were loaded with plums up to July, last year, when they all rotted and fell off. How will the trees be affected by this, in their bearing this year? If badly, what can be done to, in some measure, remedy the evil? W. F. COLLINS. *Toronto, C. W.*

We do not know an efficient remedy for the rotting of plums on the tree—neither do we know that the loss of the crop in one year has any influence the following season. We should be glad to have clear, well-observed facts, from our correspondents.

OSIER WILLOW.—A correspondent wishes to know who purchases the osier willow—how they should be sorted, and the price of each sort. Perhaps some of our readers can furnish the information.

LIMA BEANS.—*R.* We think Lima Beans would do well in Oswego county. The seed can be obtained at any of the seed stores in this city and most parts of the country.

ALKALINE SALTS.—*W. W. R.* We have no means of answering your question. We gave the analysis as we found it in one of our foreign journals.

INDIAN MILLET.—*P. W.* This is a tropical plant, and would not be likely to mature in most parts of this state, and if it would, we know of no advantage likely to be derived from its introduction. Neither for man or beast, can it compare with wheat, rye, oats and corn. We should like to hear, however, from any of our readers who may have grown it, and where the seed can be had, as we infer that our correspondent would like to make a trial of it.

MILLET.—How early should millet be sown, to enable me to cut it for hay, and get it off the ground before the fall rains come on—say by the middle of August? F. D. [Sow early in May. For directions for culture of Millet, see Co. Gent. vol. 5, p. 214, or Cult. for 1855, p. 148.]

RICE MEAL.—Please be so kind, as to give your experience in regard to *rice meal* for the dairy. Whether it is most adapted to produce milk or flesh. If milk, does it produce a large secretion, or is the quality improved without increasing the quantity? Also would it be more economical feed than Indian corn meal at one half the cost per hundred? A SUBSCRIBER. *Pawling, N. Y.* [We have no experience in the matter. Perhaps some of our readers can enlighten our correspondent.]

KING PHILIP CORN.—The notice in Co. Gent. No. 6, has brought me a greater number of applicants for King Philip corn than I expected. I can supply these and would send to others if I had the seed, but my supply is exhausted. W. E. BOISE. *Blandford, Mass.*

BOTTOM LAND.—Having a 25 acre strip of second bottom land situated in *Ohio*, I make inquiry through the medium of your paper as regards the best mode of treating it this coming season, in order to improve the land and receive large crops. The soil is a gravelly loam. The past season it was not cultivated—the year before a clover sod was turned under, and a crop of corn taken from it, the yield 30 bushels to the acre. If some of your readers will answer the above queries, they will confer a favor on A SUBSCRIBER.

JAPAN PEA.—Perhaps you or some of your many correspondents, can inform me whether any reliable experiments have been made with the Japan pea, to determine its value as a food for stock? Hogs seem to be very fond of it, and I observe cattle eat the hulls with a good relish, but how far it possesses any value as a nutritious and economical food for any kind of stock, is the question I shall be glad to have answered.

It is easy of cultivation, very prolific, and from the density of its shade keeps the ground clean of weeds, advantages which would render it a desirable plant to the farmer, provided it contains the elements of a good food for stock. F. D. *New Richmond, O.*

GRASSES FOR LAWNS.—Can you, or any of your correspondents, tell me what grasses are best to sow for a "lawn," upon the intervale land of Connecticut river. I have somewhere seen redtop and white clover recommended for some localities, but have doubts about its being the best for this vicinity. LEVI C. SKEELE. *Chicopee, Mass.*

TREATISE ON INSECTS.—*B. T.* The best work, as yet published, on destructive insects, is Harris's second edition—the price is probably about two dollars. Dr. Fitch has not yet written any general work of the kind.

SEEDS.—*O. M. S.* You will see that we have adopted your suggestion.

CHESS.—*G. C., Lancaster, N. Y.* In the case mentioned, you undoubtedly destroyed the vitality of your wheat, by soaking and freezing—the chess, being more hardy, survived the process, and produced the crop—or perhaps the chess was produced from seed previously in the ground. That chess grew where wheat was sowed, only proves that the wheat was destroyed—not that it was changed to chess.

SOWING ARBOR-VITÆ.—Will you please inform me through the Cultivator, how the seed of the "Arbor-Vitæ," can be made to germinate, when sowed. Please state also how the ground should be prepared, etc. T. M. *Mastersonville.*

Prepare a soil by mixing sandy loam with peat or leaf-mould, incorporating them well together. Sow the seeds about one third of an inch deep, by first strewing the seed on the bed, and then sifting the soil over to the required depth. The soil must now be kept moist till the seeds sprout, which if necessary may be effected by spreading on the bed, a piece of canvass, after watering. The young plants must be shaded from the sun. This may be done by a low canvass awning, by the shade of a high fence, or of a building, or by placing boards east and west, inclined on their edges from the sun, and wide enough to shade each double or triple row across the bed. The boards are nailed to inclined stakes to hold them to their places. The arbor-vitæ will grow readily the first year. In a year or two, the plants may be transplanted to rows.

CELLAR FOR ROOTS.—Can you or some of your readers inform me whether it would be possible to construct a cellar, on level sandy land, without digging more than 2 or 3 feet, the cellar to be entirely separate from other buildings, where root crops for stock, and also cabbages, onions, and all potatoes not wanted for use in winter, might be kept. If any of your readers can give the desired information I shall be much obliged. H. *North Lawrence, St. Lawrence Co., N. Y.*

The cellar should be deep enough to admit of walking erect in it, otherwise it will prove extremely inconvenient in passing in and out. If the necessary drainage can be given, it might be dug three feet deep, and the remainder of the required height protected by a moderately sloping embankment outside. It should be covered by some building, both for security from frost, and for economy; for the roof which must be made, may as well cover an apartment above. If straw or hay should be stored in this apartment, it would afford secure protection from cold. But if a *cheap* cellar only is intended, it might be built with dry stone walls, slightly inclining outwards, and the whole might be covered with a pole roof, and a thick coating and thatch of straw.

CORN PLANTERS.—*S. H. W.* Wakefield's Corn Planter is for sale in this city, by the dealers in agricultural implements—price $5. "Which is the best corn planter in use at present?" This is a difficult question to answer, and one which we shall not attempt to decide.

GRAIN REAPERS.—*R. A. Gesner, Salem, Oregon.* Without presuming to say which is the best reaper under all circumstances, we can inform our correspondent, that Atkins' Self-raker, Manny's, Hussey's, and McCormick's, are all popular machines, and widely used, and either would probably succeed well. The freight to Oregon would be least by sailing vessel, but we are unable to say what it would be.

YELLOW CLOVER.—The plants enclosed in the letter from GEO. W. PHILIP, of Leeds, Greene Co., N Y., were nearly reduced to powder before they reached us, but enough remained to show them to be (probably) the Yellow Clover, (*Trifolium procumbens,*) a small plant which is becoming gradually introduced into meadows and pastures. It is not generally regarded as of much value, but has in some instances been mixed with seed for lawns, for the sake of variety. On the lands of our correspondent it appears to be rapidly becoming a troublesome weed, extending over his farm, and being mostly rejected by cattle, while other grasses are closely eaten. It is annual or biennial, and might doubtless be easily eradicated by a judicious farm rotation in connection with clean culture.

ABSORBENTS FOR PUTRID MATTER.—Will you inform one who enjoys a hearty intellectual feast in the perusal of your valuable weekly, how to deodorise offensive matter,—the contents of sinks, etc., in view of making a compost to be applied next fall, or the spring following. ARTHUR DE WINT. *Fishkill Landing, N. Y.*

[Sink-water, slops, &c., contain a mixture of various ingredients, in different degrees of decomposition; and nothing is a better general absorbent for all these than charcoal. Probably the best way of making the proposed compost, would be to deposit in the compost vat or heap, a layer of well dried peat, (which possesses something of the characteristics of charcoal,) on which the slops are to be discharged. Additional layers of the peat are to be added, as each becomes charged with the slops. A portion of charcoal, applied frequently, would assist the process. And to destroy all the offensive odor, as the process advances, sprinkle the heap frequently with powdered lime. If peat cannot be had, *dried* turf will answer an exceilent purpose, the lime being often sprinkled over it, as successive layers of the turf are added. Charcoal, as before, would be an excellent addition.]

REMOVAL OF FRUIT TREES, &C.—Will fruit trees do as well, as growers and bearers, in northern Ohio, (Ashtabula Co.,) transported from New-Jersey? Also what is the effect upon the fruit, to graft sweet into sour or sour into sweet? (old trees.) E. K. CLARK. *West Andover, O.*

[Healthy and thrifty trees, well packed, and safely carried from New-Jersey to Ohio, will do as well as those raised there. Every thing, almost, depends on the treatment the trees get after setting out. We have known the *yellows* disseminated by diseased trees from eastern states, and our correspondent, if procuring *peach* trees, should satisfy himself well on this point. The stock often slightly *modifies* the character of a fruit, without destroying any of its essential qualities. We cannot speak from distinct experiments, of the changes wrought in apples by a sweet or sour stock—it is evidently very small, as Spitzenbergs and Rhode-Island Greenings, are always Spitzenbergs and Greenings, wherever they may be grafted.

GRAPE.—Will the new White Muscat of Alexandria succeed well and become profitable in open culture? O. E. CLARK. [It needs not only a grape house, but succeeds best with fire heat. Open air will not answer at all.]

BARREN GRAPE VINE.—We have a seedling grape vine that has blossomed for three successive years, but has never matured fruit. Is there any remedy for this barrenness? M. F. *Root, N. Y.*

[If the fruit *sets,* but does not "mature" or ripen, as our correspondent states, we cannot assign the cause without further information; but if the fruit never sets, the flowers are pro-

bably imperfect, and may, or may not be fertilized artificially, according to the nature or character of this imperfection.]

HAY PRESS.—Can you or some of your many readers, inform me about the hay press, shown at the Albany County Fair of last fall, by a Mr. Seeley or Potter? I do not recollect which—where they may be bought, and how they work *as* a hay press. S. W. A.

STONE PICKER.—Will you please to inform me through your paper, if there is a machine now in use for picking up stone; and if so, does it do the work effectually? What is the cost? Where can it be found, &c.? Any information which you can give with regard to it will be thankfully received. SUB-

CURING HAMS, &c.—*H. W.* You will find the directions you want in relation to curing hams, beef, &c., in the current vol. of the Co. Gent., p. 79, and also in the March no. of the Cultivator.

VERMONT WIND MILL.—*J. J. Green.* The power of this mill to operate a threshing machine, circular saw, &c., has not, to our knowledge, been tested.

FARM IMPLEMENTS—*S. S. B.* We can send you Mr. Thomas' work on Farm Implements, by mail, post paid, for $1.

TEA WHEAT.—*J. M.* This wheat can be had at the seed stores in this city, and we presume of R. L. Allen, 189 Water Street, New-York.

CROWELL'S THERMOMETER CHURN.—*W., Caldwell, N. J.* This churn can be had at the agricultural warehouses in this city, and we presume also at those in New-York and Philadelphia—price $3.50 to $6, according to size.

GRASSES, &c.—*G. W. P.* We are unable to furnish the information you desire in relation to certain Grasses. The couch grass and quack grass are the same. You will find directions for the culture of *Millet*—its product and use in the Cultivator for 1855—pages 59a nd 148. Mr. Thorburn of this city has the seed.

MILLET, &c.—I want to procure a few bushels of Millet and penny grass seed. Will you have the goodness to inform we whether they can be had in Albany, and at what price. S. M. [Millet can be had in this city at $3 per bushel. Penny grass is new to us.]

RAPE SEED.—How much rape seed does it require to sow an acre of ground, and what does it cost? F. [When sown thick for feeding, a peck may be used, but when drilled or sown thin for harvesting, two to three pounds is sufficient.]

RASPBERRIES.—*W. B. B., Bloomfield, N. J.* Most of the nurserymen have all the varieties of the Raspberry. Dr. I. M. WARD of Newark, also, we presume, could furnish the plants you want, and give you in addition the best directions as to their management.

OREGON PEAS.—*A. P*—We do not know where these are to be had

MILLS.—1 wish to get a chopping mill (Bur's,) and saw mill, that will cut boards, scantling, &c., from, say 2½ feet logs, to run by horse power. Can you or some of your readers inform me through your paper, where they can be had, and the price? C. B. *Douglasville, Pa.* [We cannot.]

SEED CORN.—Where can the Early Canadian Corn, be procured—also the Tuscarora corn, with the price of both per bushel? H. [Our seedsmen should answer such questions, as we can only refer to the seed stores for the information desired.]

CHANGE of SEED.—Will you please inform me through your Co. Gent., whether it would pay to bring seed wheat from Canada to this country. If any of your subscribers have tried the experiment, and will let the result be known, they will confer a favor to a young farmer. J. THOMAS. *Kent, Ct.* [Will some of our correspondents who have had clear practical experience in this matter, give us an answer.]

SCRIBER. [We saw a notice of such a machine some years ago, but whether it was ever made to accomplish the purpose for which it was intended, we are unable to say.]

MICHIGAN DOUBLE PLOW—*R. A. G., Oregon.* This plow turns under weeds, stubble, &c., in an efficient manner. It will run to different depths, according to its size and the strength of team, varying from 9 to 15 inches. A large plow, running a foot deep, requires six horses or three yoke of oxen, to do the work in the best style.

APPLES.—We have received two varieties of very fine apples from Mr. S. WILBUR of Chatham, with the request that we would furnish their names; but we have not been able to identify them.

INQUIRY ABOUT HORSES.—Can you or any of your numerous subscribers, tell me how I can cure a horse of stiffness. I have a very valuable young horse; by driving him last winter, either by cold or water founder, he became very stiff. I kept him on pasture last summer, and have not worked him since; but he don't get any better. Some experienced horse dealers say it is chest founder, and there is no remedy for it. Possibly some of your readers may know of some remedy that would help him. J. J.

FISTULOUS WITHERS.—I have a horse under my care, that has fistulous withers. The tumor has broken, and is discharging. My object in writing is to inquire through your valuable paper for a remedy for the above disease. A SUBSCRIBER. *Fallston, Pa.*

WAKEFIELD'S PLANTER.—In your last issue, I notice an inquiry from one of your correspondents, for a corn-planter. Allow me just to say that Wakefield's planter was partially introduced in our vicinity the past season, and gave good satisfaction. There is no doubt they will do the work well, where the land is tolerably feasible, and will drop as even as almost any experienced person will by hand. There can be no doubt but what they will be extensively used until something better is invented. If there is any objection to them, it is that they will not drop pumpkin seed with the corn, and consequently this will need to be a separate operation, (unless we do away with our Thanksgiving,) and will not drop corn that is rolled in plaster, or any other mixture that is not perfectly dry, and will leave the seed clean. W. J. PETTEE. *Lakeville, Ct.*

HYDRAULIC RAMS.—*R. A. Gesner, Salem, Oregon.* Three feet fall, in thirty feet, as in the instance mentioned, will be ample to operate a water-ram to advantage, and raise the water to fifteen feet as proposed, or to any other desired height, if it be five times this elevation. The ram will not be likely to succeed however, with a driving-pipe less than one inch in diameter, and the quantity of water should be at least half a gallon per minute. The discharge pipe need not in this case be more than half an inch internal diameter.

The quantity of water elevated is as many times less than the amount furnished by the spring, as the elevation of the discharge pipe exceeds the fall of the driving pipe, with friction also deducted. If, for example, the drive-pipe descends three feet, and the elevation is thirty feet,—a spring furnishing one gallon per minute, will elevate one-tenth of a gallon per minute to the height named, or one gallon in ten minutes, deducting the amount of friction. The latter usually varies from 10 to 20 per cent., according to the height. Calling it 15 per cent. in this instance, the real quantity of water driven 30 feet high, would be about 8½ gallons every 100 minutes, or nearly one-twelfth of the whole water of the spring.

As the power of the ram depends on the *momentum* of the descending cylinder of water, there should be a longer drive-pipe where there is a greater head to be overcome.

We are not able to give the exact price of rams, which varies with the size; but we think that $20 will pay for a good one of the smaller or medium size.

How to Make Carrot Coffee.

MESSRS. EDITORS—I have never seen anything in the Country Gentleman, respecting carrot coffee, and will therefore give you the mode in which it is prepared in my family.

We clean the carrots, and cut them into pieces about half an inch square; then put them into a tin under the stove or in the oven, where they will brown and dry hard enough for grinding.

Then grind and use about one part carrots to two parts coffee. It makes both a wholesome and agreeable beverage. Care should be taken not to let the carrots burn while drying. We dry them hard enough to grind easily. If the carrots are good, we think the proportions of carrots and coffee mentioned above are quite as palatable as all coffee. Some use a larger proportion of carrots, and some make their coffee entirely of carrots. C. J. C. *Michigan.*

A New Method of Preparing Mustard.

EDS. CO. GENT.—I send you a very good receipt, to prepare mustard, far superior to the common way. When prepared in this manner, it has a very pleasant and agreeable taste.

RECIPE.—Powdered astragon, ½ ounce.
Mustard, 1 lb.
Sugar, 1 ounce.
Salt, 1 "
Black pepper, ½ "
Cayenne pepper, ¼ "
Olive oil, 4 "
Tincture of allspice, ½ "
" " Garlick, ½ "

Vinegar, a sufficient quantity to make it of a proper consistence. Then bottle, and let it stand for a few days before using. J. F. D. L. *Greensborough, Maryland.*

Product of our Cow.

MESSRS. EDITORS — As it is becoming somewhat fashionable to report through your columns, the products and profits of cows, in various parts of the country, I have a mind to tell the world what *our cow* did for us the past season. We kept but one, and my wife thinks she is a good old cow. I paid $35 for her in the spring of 1850, when she was six years old. Consequently she was eleven years old last spring. The man of whom I bought her, said she had a slight tincture of Durham blood in her veins. She is as white and clean as a snowdrift, and has all the marks of a good cow, so far as I am able to judge. She dropped her calf April 9th, 1855, and as soon as there was sufficient grass for a good bite, she began to pour out her milk by the pailful. I have just been looking over our butter account for the past season, and find that it foots up 176 lbs. 10 oz., which was worth, in Hartford, at least 25 cents per pound. Having had a great deal of company during the summer, we of course used no small quantity of milk in the family,—say two quarts per day for the whole season, which is by no means a large estimate, though we kept no account of it. The income from this cow may be stated as follows:

176 lbs. 10 oz. butter, at 25 cts. per lb.....	$44.15
2 qts. milk per day for 210 days at 4 cts.....	16.80
Calf.....	10.00
	$70.95

I say nothing of the value of the skim milk given to the pigs.

I do dot pretend to boast, or to exclaim, "Beat this who can!" or that my gun "is a *leetle* louder than anything as yet." Seeing no necessity for this, I will merely add, that the cow was fed with nothing but corn-stalks during the winter, with hay before and after calving, and a rather poor pasture during the summer. Whatever others may say or think of *their* stock, I am satisfied that I have a good old cow. WM. STORER. *West Hartford, Ct.*

Fruit Drying Apparatus.

In answer to our correspondent P. P. of Portland Oregon, in relation to this apparatus, figured and described by us a year or two since, we can only say, that the size of the house, height, breadth of shelves, &c., must depend entirely on the amount of business required to be done. The *time* required for drying, will vary with the strength of the current of hot air, and the smallness of the pieces of cut fruit. If cut quite small, two hours would dry them thoroughly; if larger, four to six hours might be necessary. Twenty shelves on one side, each two feet square, would hold about two bushels of the freshly cut fruit, and would perhaps dry five or six bushels a day.

If the shelves were a foot apart, the height of the building for 20 shelves on a side, would be over twenty feet, and the drums a little over two feet in diameter. The height may of course be increased to conform to any increased number of shelves; and although we would not recommend the shelves to be wider than two feet, their length might be increased to several feet, if greater capacity is required.

It is of course of the utmost importance that the purest air should be admitted to the shaft of shelves. A large portion of the dried fruit now sold in market, is injured or spoiled by the smoky or impure air of the rooms in which the drying is accomplished. The hot air in this apparatus is obtained from an air-chamber, surrounding a stove and drums, precisely like those of a hot air furnace. Where mineral coal is cheap, one of Bushnell's portable coal furnaces for warming dwellings would answer, the smoke-pipe passing outside of the shaft, and the hot-air pipe opening directly under the shelves.

We are not able to give any directions for its construction, more minute than these. A common carpenter, who can only follow working drawings and given dimensions, cannot be expected to make such an apparatus; an ingenious, thinking man only can construct one, until more experience is attained as to its best form and requirements. The cost will vary with the perfection and finish of the work—one hundred dollars ought to make a good apparatus of the smaller size, besides the furnace, which if portable might be used in autumn for drying fruit, and in winter for warming a dwelling.

Bark Louse—Inquiry.

Will you or your valuable correspondent DR. FITCH, inform your readers, what material should be applied to the root of fruit trees, in order to destroy the Bark Louse. Almost all the trees in this section, are suffering from this complaint, brought on, I think, from want of cultivation. I believe proper cultivation would in a few years lessen, if not do away with the louse, but I believe some 'multum in parvo' remedy might be applied to the roots, that would cause them to scale off. I have tried the rough clinkers from the smith's shop, burying them among the roots, but only late last season. If they are known to be good to the trees, would it not be better to crush them and use them on the surface, or would not the sweepings of the smith's shop be useful in such a case? J. H. H. *Nova Scotia, Feb.*, 1856.

"Value of Pumpkins for Milch Cows."

I have fed pumpkins to my milch cows, the past fall and thus far this winter, in small quantities—not more than a peck each, per day. Their feed in other respects does not vary very materially from what they have had in past seasons, but one thing is certain, that they give more milk, and the butter has a sweeter taste than in past seasons. This result we attribute to feeding pumpkins. We consider them as next to carrots in value for feeding milch cows in the winter. WM. E. COWLES. *Canton, Ct.*

Extracts from Correspondence.

CORRECTION.—In publishing a short article from my pen, in your paper for the present month, on the subject of *Broom Corn*, your types have made a slight blunder, which, if suffered to pass uncorrected, may possibly lead to an error in the construction of a machine for cleaning off the seed—if, indeed, any of your readers should be induced to follow my directions in that matter. The article, as printed, directs that the *teeth* on the cylinder should be *ten* inches in length; whereas, I wrote *two* inches. An important difference, as any one would soon learn, who should attempt to use a machine with teeth even one-half as long as ten inches. Please correct the error, and I will endeavor to write plainer next time. WM. STORER.

HEALTHFULNESS OF IOWA.—Permit me to say to your correspondent Mr. Colburn, not to indulge unnecessary fears concerning the health or life of the Hawk Eyes. Hundreds, nay thousands will say that they have much less of colds, coughs, or sickness of any kind, than when residing in the East; and having spent some fifty years in that region, and five in this, I claim to know something of the matter. We have during the year, at least two fair days here to one in the Atlantic states, and not to exceed one-fourth of either snow or rain that falls in Vermont. I merely make these remarks from the belief that erroneous ideas are entertained concerning the salubrity of the climate of Iowa. J. W. *Bradford, Iowa.*

SPLITTING BOULDERS.—An improvement on your plan of splitting boulders, is—after you get the rock very hot, remove the fire and pour on a few buckets of cold water. I have tried it and never knew it to fail. J. J.

IS PLASTER INJURIOUS TO STABLE FLOORS?—I wish to offer a remark upon a portion of the article entitled "Answers to Inquiries about Manures," in the Co. GENT. for Feb. 7. The language I refer to is as follows:—"Where gypsum is cheap, we think it might pay to scatter it in stables," &c. The writer may perhaps not be aware that plaster used upon stable floors, causes a rapid decay of all kinds of timber commonly used for floor plank and sleepers. At least I have seen a statement to that effect in some agricultural journal, and have been so informed by a somewhat noted farmer of this county, who claimed to speak from experience. Perhaps the matter is worthy of a passing notice. O. M. SLOSSON. *Pompey, N. Y.*

KEEPING TURNIPS.—In your article on Turnips and other Root Crops, you say the white turnip cannot be kept in good condition after the first of Jan. That depends much upon the cellar. Mine is dry and warm, and the turnips are good yet; and had we not so much of the Yankee go-ahead in us, but that we could afford the time when taking off the tops, to cut so deep into the turnip as to prevent its sprouting, and to take off the tap root too, the turnip would keep about as long again as it does in the ordinary way of managing them. On my dry sandy land they may be kept in holes till April, almost as good as the day they were put there. I am glad to see such articles in your paper. We must raise more roots and we must be urged and crowded to it. D. B. R.

BRACK SEA WHEAT.—Your correspondent, MILLER, of Battenville, N. Y., must not try to discourage the growers of Black Sea Wheat, by saying that it flours but "little better than Canada corn," till he is sure he is master of his trade. Now sir, I am not a miller, nor have I any interest in any mill; but then I have been in the practice of *grinding bread* for upwards of forty years, and claim to be something of a judge of the article; and I can assure MILLER that if he will call at Brown's mill, in this town, he may learn how to flour Black Sea wheat, a "heap" better than "Canada corn;" and if he will call on me, I think my wife can show him as good (Black Sea wheat) bread as he ever saw made from any spring wheat. FARMER. *Root, N. Y.*

Agricultural Societies.

UNITED STATES AG. SOCIETY.—A meeting of the Executive Committee of this Society, was held in Philadelphia on the 28th ult., the President, Col. WILDER, in the chair. The object of the meeting was to arrange certain preliminaries for the next annual exhibition, which has been fixed to take place in Philadelphia, commencing on the 7th of October, and which it is proposed to conduct on a scale of unexampled liberality and splendor. The citizens of that city have raised a guarantee fund of $15,000, and appointed a committee of forty to act in concert with the officers of the Society in carrying out the plan of the exhibition, which is to embrace, as objects of the exhibition, horses and horned cattle, swine and sheep, agricultural implements, cereal and vegetable products, poultry and native fruits and wines, and for which from $12,000 to $15,000 was appropriated as premiums. A grand banquet, in which ladies are to participate, was agreed upon. The exhibition is now as general as those of our State shows, and from its central location, will undoubtedly far exceed anything of the kind hitherto got up in this country.

PROVINCIAL AG. SOCIETY OF CANADA WEST.—It is proposed to hold the next exhibition of this Society at Kingston, simultaneously, or on the week preceding or following our State Show at Watertown, as it is believed that the attendance of both will thereby be greatly increased. The distance from Watertown to Kingston is only about 45 miles, by railroad and steamboat. A spirited public meeting was held at Kingston last week, to concert measures for the accomplishment of this object, and to aid the Society in getting up such an exhibition as will be creditable to the Province.

VERMONT STATE AG. SOCIETY.—The annual meeting was held at Middlebury on the 6th inst. The following were appointed officers of the Society for this year:

President—Hon. F. Holbrook, Brattleboro.

Vice-Presidents—E. Hammond, Middlebury; H. S. Morse, Shelburne; Henry Keyes, Newbury, and J. W. Colburne, Springfield.

Directors—E. B. Chase, Lyndon; N. Cushing, Woodstock; Geo. Campbell, Westminister; Jacob Scott, Montpelier; John Gregory, Northfield; J. W. Vail, Bennington; H. H. Baxter, Rutland; John Howe, Jr., Brandon; and B. B Newton, St. Albans.

Cor. Secretary—J. A. Beckwith, Middlebury.

Rec. Secretary—J. H. Crosby, Woodstock.

Treasurer—Edward Seymour, Vergennes.

IOWA STATE AG. SOCIETY.—The officers of this society for this year, are,

President—THOS. W. CLAGETT, Keokuk.

Vice President—Le Grand Byington, Iowa City.

Cor. Sec'y—Wm. Duane Wilson, Fairfield.

Rec. Sec'y—J. H. Wallace, Muscatine.

Treasurer—J. G. Gordon, Muscatine.

The next State Fair, by a vote of the Board, is to be held at Muscatine, commencing on the second Wednesday of October, 1856.

LAKE CHAMPLAIN VALLEY HORT. SOCIETY.—The annual meeting of this Society was holden at Burlington, Feb. 19. After the Report of the Executive Committee, the following officers were appointed for the coming year:

President—JOHN WHEELER, Burlington, Vt.

Vice Presidents—S. E. HOWARD, Chittenden Co., Vt.; R. T. ROBINSON, Addison Co., Vt.; A. O. ALDIS, Franklin Co., Vt.; J. M. Ketchum, Rutland Co., Vt.; J. Battey, Clinton Co., N. Y.; W. C. Watson, Essex Co., N. Y.; Buel Landon, Grand Isle Co., Vt.; J. Torrey, Burlington; B. B. Newton, St. Albans; W. H. Hoyt, St. Albans; J. W. Bailey, Plattsburgh.

Sec'y & Treas.—W. C. Hickok, M. D.

Standing Fruit Committee—Joseph Torrey, J. Battey, Albert Chapman, C. Goodrich, J. W. Bailey.

Prof. of Entomology—W. C. Hickok.

Prof. of Botany—J. Torrey.

Notes for the Month.

FRUIT CROP AT THE WEST.—The thermometer throughout several of the western states, has sunk the present winter down to 20° to 40° below zero. As an inevitable consequence, the peach crop in that region is entirely destroyed. Cultivators there, generally, fear that large numbers of their *trees*, even including the *apple*, are killed. We hope the result may be more favorable. Last winter the thermometer sunk to 26° to 36° below zero in most parts of western New-York, killing the entire peach crop, and turning the wood above the snow line to a *dark brown*. In the spring, any one could readily ascertain the depth the snow had been at any peach tree, by cutting into the wood—below, it was *white*, above the color of *tobacco juice*. We invariably advised all to let their trees stand till the result should be manifest. A few, in despair, cut their trees down, or rooted them up, and of course lost these. Those which stood, all live, with scarcely an exception. The apple, plum and pear shoots were dark brown, some almost black. Yet nearly all lived and grew finely.

There were however, two very favorable influences. The previous season's severe drouth ripened the wood early, and fitted it for enduring severe cold. The following spring was cool and moist and prevented the disastrous results which must have accompanied a hot and dry spring.

Western trees are more succulent in growth, and the spring usually comes on suddenly warm. These do not favor the success of trees injured by intense cold. But we hope our western friends will *wait*. Rare specimens, if *shaded* from the sun immediately, may survive.

In *western New-York*, the thermometer sunk to 12° below zero (at Macedon) on the morning of the 15th of 2d month, (Feb.) About one half of the peach buds are killed, leaving enough for a plentiful crop, if nothing else happens to them. The winter had been uniformly cold previously. Had there been warm weather before, most would probably have perished. Clouds obscured the sun in the morning, and the temperature rose gradually, which also were favorable.

DEATH OF LEMUEL HURLBUT.—This gentleman died at his residence in Winsted, Conn., on the 19th inst., after a protracted illness of more than three months, at the age of 70. Mr. H. was well known as a breeder of Devon cattle, throughout the country. He took a deep interest in agricultural improvement, and was present at nearly all the State Fairs which have been held in this state and New-England, where he had formed a most extensive acquaintance with gentlemen from every section of the country, by whom his loss will be sincerely lamented.

☞ We are indebted to the Hon. M. P. WILDER, President of the Society, for the *Journal of the United States Ag. Society for* 1855. It is a handsome volume of 264 pages, illustrated with a beautiful view of the Show Grounds at Boston, and portraits of several of the prize animals. About thirty pages are occupied with the proceedings of the Society at its annual meeting in 1855, and the remaining portion of the volume is devoted to a history of the transactions connected with the late exhibition at Boston.

IMPORTATION OF SHEEP.—GEORGE HARTSHORNE, Esq., Locust Grove, Rahway, N. J., has just received seven South Down ewes from England, four of which dropped lambs on the voyage; and five Cotswold yearling ewes. These were selected from the very best flocks in England, by Mr. Hartshorne's brother-in-law, Anthony G. Robinson, Esq., London. Mr. A. had formerly received two South Down bucks—one from Jonas Webb's, and the other from the Duke of Richmond's flock.

NEW FACTS IN FRUIT CULTURE.—The proceedings of the Fruit Growers' Society of Western New-York, containing a large fund of new information on fruit culture, and more especially in relation to the successful growth, management, and sale of fruit for market, has been just published, and will be sent to all members, and also free to all others who shall remit 30 cents in postage stamps to H. E. HOOKER, Secretary, Rochester. The volume contains 140 octavo pages, and is full of facts of the most interesting and valuable character; a limited number of copies having been printed, orders should be sent early.

ALBANY SEED STORE.—We take pleasure in calling attention to the advertisement of Mr. THORBURN, who has been well known for more than twenty years as a reliable seedsman. It will be seen that beside the usual variety of field and garden seeds, he has several that have been of late much inquired for, such as King Philip Corn, White Russian Flax, the Christina and Orange melon, &c.

IMPROMPTU CATTLE SHOW.—There was a volunteer exhibition of fat cattle at Northampton, Mass., on the 19th ult., at which were present 54 pairs of oxen and five cows, all fattened, it is said, within one mile of the court-house in that town. The *Amherst Express* says that the largest in number, the best in quality, and the heaviest pair (weighing 5,052 pounds) were exhibited by Nathaniel Day & Brother. They presented 20 yoke, of an aggregrate weight of 77,793 pounds—and an average weight of 3,889 pounds per pair. Elisha Graves, six pairs; aggregrate 24,021; average 4,003. William Strong, six yokes; aggregate, 19,680; average, 3,280. Capt. Samuel Parsons & Son, four pairs; aggregrate, 13,925; average 3,481. Samuel Day, four pairs; aggregrate 14,436; average 3,609 lbs. Z. Clapp & Sons, three pair; aggregate 10,040; average 3,346. J. S. Parsons & Son, 4 yokes; aggregate, 13,442; average, 3,360. Lyman Kingsley exhibited a cow which weighed 1,606 pounds, and Henry Graves one of 1286 pounds, which gives at present 16 quarts of milk per day.

A VERMONT FARM.—It would seem that there are some large farms in Vermont, as well as out West. The papers furnish the following statement of the products of the farm of Mr. A. M. CLARK of St. Albans, for the year 1855:

7176 bushels grain, estimated at.....	$5,125.00
3230 lbs. wool, nett,.....	1,344.00
Cattle, sheep, and horses sold,.....	1,236.00
Received from a dairy of 45 cows,.....	1,350.00
	$9,055.00

Hay enough is cut on said farm to winter his stock, consisting of 671 sheep, 123 head of cattle and 56 horses; and the stock sold does not exceed the growth and increase.

CATTLE SALES.—Mr. ENOCH MARKS' noble Short-Horn Cow Ringlet, whose portrait we gave in last week's Country Gentleman, was purchased last summer by Mr. Marks from Dr. HERMAN WENDELL of this city. Matchless, a beautiful four-year-old,—calf of Ringlet,—was recently sold by Dr. Wendell to Mr. WILLIAM BALKWILL of Canada West. He has also within a few days past, sold to HENRY ROSEBOOM, Esq., of Otsego Co., N. Y., roan bull Hampton, (5700) got by Meteor (11811) out of Matchless—to T. S. GRUNDY, Esq., of Washington Co., Kentucky, white bull Second Meteor, (956 A. H. B.) got by Meteor (11811) out of his imported cow Lady Liverpool—also heifer Daisy VIII—and to D. B. HOLCOMB, Esq., of Chester, Mass., red bull Derby, got by Dr. W.'s imported bull Lord Ducie (13181) out of cow Lady Bird—also to E. AVERY, Esq., of Clintonville, Oneida Co., roan bull Earl Carlisle, got by imported Lord Ducie (13181)—out of Duches of Exeter.

THE AMERICAN GRAPE GROWER'S GUIDE. Intended Especially for the American Climate. Being a Practical Treatise on the Cultivation of the Grape Vine in each Department of Hot House, Cold Grapery, Retarding House, and Out-door Culture. With Plans for the Construction of the requisite Buildings, and giving the best Method of heating the same. Fully illustrated in every Department. By WILLIAM CHORLTON.

A COMPLETE MANUAL FOR THE CULTIVATION OF THE CRANBERRY, with a Description of the Best Varieties. By B. EASTWOOD. Illustrated by several Plates.

The above are from the press of Messrs. C. M. Saxton & Co., No. 140 Fulton Street, New-York. Mr. CHORLTON is recognized as an authority on the subject of Grape-Growing, and his book will be found of no little practical assistance to the amateur. It is an enlargement of his "Cold Grapery," and treats the subject very thoroughly in this and its other modifications. The subject of the latter book—the Culture of the Cranberry—has been attracting considerable attention of late, and we presume that Mr. EASTWOOD'S "Manual" is more full and comprehensive than any that has before appeared.

FERTILIZERS.—Our readers must be hard to please, if they cannot find, among the list of artificial fertilizers advertised in this paper, something that will suit their crops and soils. Among those most lately introduced, is the "Muriate of Lime," for sale by James Gould, Boston, and Wm. B. Bogle, New-York, which is highly spoken of by several who used it last year. Then there is the "Fish Guano," for sale by S. B. Halliday, Providence, R. L. Allen, New-York, and R. H. Pease & Co., Albany—the "Poudrette and Tafeu," by the Lodi Manufacturing Co., New-York—the "Ammoniated Superphosphate of Lime," by Mr. De Burg, Williamsburgh—and Peruvian and Ichaboe Guano, Bone Dust, Plaster, &c., &c., for sale by various other houses. That all these manures have in some instances proved useful, there can be little doubt, but who can tell to what crops and under what circumstances they can be most economically employed? To settle these points, we need a State Laboratory and Experimental Farm, conducted by persons whose knowledge, integrity and carefulness, will give authority to their decisions.

ANOTHER CALIFORNIA WHEAT CROP.—The California State Tribune says, that a well known farmer on Cache Creek in Yolo county, has a small patch of land containing forty-five acres, from which he produced the last season a crop of wheat averaging seventy-three bushels to the acre, all of which he sold at three cents a pound, producing the handsome sum of $5,913.

FACTS ALTERED TO SUIT THEORY.—It was said of the celebrated Buffon, that he formed his *Theory of the Earth*, by indulging his poetical fancy; and then went to work industriously to collect such facts as he could find to support it—rejecting of course, those that did not suit him. We laugh at such an absurd process of reasoning at the present day, now that such philosophy has become obsolete, and when every one is so earnest after simple, untwisted, undistorted truth.

But we have some "philosophers" now, that are no better, and who have not even the plea of a poetical theory, but who are actuated merely by mercenary motives, such as the fees of "consulting agriculturists," &c. The papers state, that the "professor" who made an address at the Indiana State Fair, asserted that "the wheat crops of Ohio had fallen from 35 to 15 bushels per acre." Intelligent agriculturists in Ohio have repeatedly denied and disproved such statements as this, and have shown by statistics that the crop has actually increased. But the statement was made to support a favorite theory, from interested motives, and on this ground will receive such excuse as it may deserve.

In former years, it was not uncommon to hear similar assertions in relation to the diminution of the wheat crop in the best wheat regions of New-York. Careful inquiry of wheat dealers and others best qualified to judge, supported the opinion that up to the time that the wheat midge began its extensive depredations, the wheat crop in western New-York had actually increased ten bushels per acre as an average product for the previous fifteen years—an improvement to be ascribed to improved farming, and the result mainly of agricultural societies and agricultural periodicals.

PATENT OFFICE REPORT FOR 1854.—We are under obligations to the Hon. CHARLES MASON for the Patent Office Report for 1854. From a short examination we are inclined to think it superior, on the whole, to many of its more immediate predecessors—we are quite aware, however, that this is not saying much in its praise. A large portion of the work is devoted to horticultural subjects—the matter being obtained principally from the Report of the American Pomological Society, and from our standard works on vegetable gardening, &c. It is all *good*, but *old*. In fact, there is scarcely anything *new* in the book. The greater portion of Mr. BROWNE'S article on Guano, will be found, if we mistake not, in his "Book of Manures." It is good enough as far as it goes, but it contains nothing new.

INFLUENCE OF GYPSUM ON CLOVER.—There is still, after many years of experiment and discussion, a want of agreement in the opinions of agriculturists as to the cause of the beneficial effects derived from the application of gypsum to clover. Some are disposed to attribute these beneficial effects to the action of the sulphur or sulphuric acid in gypsum; others to the action of the lime contained in it. Though many experiments and analyses have been made, still there is much difference of opinion from the want of conclusive and reliable evidence. A new series of experiments has just been published by a German agricultural chemist—Ritthausen—which throw some new light upon this subject. One of the most important conclusions to be drawn from these experiments is that while the bulk of the fresh crop is increased, the quantity of dry matter is diminished. This was also the result of an application of the ashes of pine and turf. The author of the experiments is of opinion that all clover grown with gypsum will be found to contain an increased proportion of water.

The nutritive value of clover is also increased as the protein compounds on which this value depends are materially increased by gypsum. This M. R. attributes to the effect of the gypsum in facilitating the passage of ammonia from the soil and from the air into the plant. He supposes it to act by decomposing the humate of ammonia, forming humate of lime and sulphate of ammonia, which converts the ammonia into a more available condition.

AN EXCELLENT REMEDY FOR HORSES THAT PULL ON THE HALTER.—Put on a strong harness with good breeching, and a long strong halter, and bring that down through the collar; fasten him to something he cannot move. He will make but few attempts before he gives it up, and in this way he can be broke of it. J. T.

LARGE SUNFLOWER.—In a late number of the Country Gentleman, is a notice of a large Sunflower, about sixteen inches in diameter—supposed by the writer to be the largest flower of the kind ever grown. In the year 1826, one of the editors of this paper measured a sunflower which grew in Ledyard, Cayuga Co., N. Y., on the farm of S. Gildersleve, the disc of which (not measuring the petals of the rays) measured 18 inches the shortest diameter, and 18¼ the longest diameter.

SPLITTING BOULDERS.—An improvement on your plan of spliting boulders is—after you get the rock very hot, remove the fire and pour on a few buckets of cold water. I have tried it, and never knew it to fail. J. J.

ALBANY SEED STORE.

ESTABLISHED IN 1831.

THE subscriber now offers at wholesale and retail his usual extensive assortment of genuine GARDEN and FIELD SEEDS, growth of 1855, comprising in part the following desirable articles, viz:

King Philip or Improved Brown Corn—price 25 cts. per qt.
White Russian Flax—(a new and desirable acquisition,)—price 25 cts per quart.
Long-Island Flax.
Garden and Field Peas of all sorts.
Garden and Field Beans of all sorts.
Indian Corn in great variety for the Garden and Field.
Millet Seed—$3 per bushel—Broom Corn.
Hemp—Rape or Cole Seed.
Lucerne or French Clover—White Dutch Clover.
Red Clover and Timothy—Red-Top or Herd's Grass.
Orchard Grass, and Mixed Grass Seeds for Lawns.
English Rye Grass, Spring Vetches or Tares.
English White Mustard, Sunflower.
Onion Sets and Top Onions.
Improved Ruta Baga Turnip.
Large White English Norfolk Turnip.
Yellow Aberdeen & White & Red top Strap-leaf Turnip.
Red Top and White Flat Turnip.
Large White Field and Long Orange Carrot.
Long Red and Yellow Globe Mangel Wurtzel.
White French and Yellow German Sugar Beet.
Honey Locust, Buckthorn and Osage Orange for Live Fences.
Yellow Locust for Locust posts.
New Orange Watermelon—25 cents per package.
Christina Muskmelon (true.)—50 cts. per ounce.
With a large assortment of choice Flower Seeds and spring planting Bulbs, &c., &c., &c.

For full particulars reference is made to my Annual Catalogue of Garden, Field and Flower Seeds, just published for 1856, which will be mailed to any address on application.

WILLIAM THORBURN,
Seedsman and Florist,
March 13—w&m3m 492 Broadway, Albany, N. Y.

TREES AND PLANTS.

THE subscriber offers for sale a large and general assortment of FRUIT and ORNAMENTAL TREES and SHRUBS, comprising every item that is usually to be found in the most extensive *hardy* collections of Nursery Stock, that can be grown without protection in this latitude.

Exact inventories of the stock, denoting the height of the trees, and the number of each sort offered for sale, with the prices, forwarded to all prepaid applications enclosing a one cent postage stamp. S. MOULSON.
April 1—m1t 36 Front-st, Rochester, N. Y.

DEVON CATTLE.

THE subscriber's second ANNUAL CATALOGUE of DEVON CATTLE, bred entirely from stock of his own importation, is now ready. It contains full pedigrees of all the animals in his herd; of which he offers a number of very superior bulls and heifers for sale.

Also ESSEX PIGS, bred from the best importations.
Address, C. S. WAINWRIGHT,
April 1—w&m6ms. Rhinebeck, Duchess Co., N. Y.

To Farmers and Gardeners.

YOUR attention is called to the Manures manufactured by the Lodi Manufacturing Co. from the contents of the sinks and Privies of New-York City, and free from offensive odor, called

POUDRETTE AND TAFEU.

Poudrette is composed of two-thirds night soil and one-third decomposed vegetable fibre. Tafeu is composed of three-fourths night soil and one fourth No. 1 Peruvian Guano.

These manures are cheaper and better adapted for raising Corn, Garden Vegetables and Grass, than any other in market. Can be put in contact with the seed without injury, and cause Corn and seeds to come up sooner, ripen two weeks earlier, and yield one-third more than other manures, and is a *sure preventive of the Cut Worm.*

Two bbls. Poudrette or 100 lbs. Tafeu, will manure an acre of Corn in the hill. Tafeu 1½ cents per lb. Poudrette $2.00 per bbl., or $1.50 for any quantity over 7 bbls., delivered on board vessel or Railroad, free from any charge for package or carriage. A pamphlet, containing every information, sent, postpaid, to any one sending their address to

THE LODI MANUFACTURING CO.,
Jan. 17—w&m4m 60 Courtlandt-st., New-York.

SELF-RAKING REAPER AND MOWER.

BEST MACHINE IN USE.

1 (the first) used in 1852.
40 used successfully in 1853.
300 in twenty different States in 1854.
1200 in all parts of the Union in 1855.
3600 building for the harvest of 1856.

THERE ARE SIX GOOD REASONS FOR THIS unparalleled increase and great popularity. 1st. It is strong and reliable, and easily managed. 2d. It saves the hard labor of raking. 3d. It saves at least another hand in binding. 4th. It saves shattering by the careful handling in raking; besides the straw being laid straight, it is well secured in the sheaf, and does not drop in the after handling, and the heads are not exposed in the stack, so that the GRAIN saving even exceeds the LABOR saving. 5th. It is a good Mower, being one of the best convertible machines in use. 6th. It has a knife that does not choke.

Its other excellencies, too numerous to mention here, are fairly given in the circulars. Its intrinsic worth is also attested by the award (mostly in only 3 years) of

OVER 70 FIRST PREMIUMS!

PRICE.—REAPER AND MOWER. $200—$75 on its receipt, $75 first September, and $50 first December. Price of SELF-RAKING REAPER only $175. Considerable saving in freight to those at a distance who order prior to 1st March; also liberal discounts for advance payment.

To procure a machine, order immediately. Though so little known the past season, and none ready for delivery till 1st of May, yet not two-thirds of the customers could be supplied. The reputation of the Machine is now widely established, so that THREE THOUSAND will not as nearly supply the demand as twelve hundred did last year, and we shall also be selling four months earlier.

☞ Order early, if you would not be disappointed.

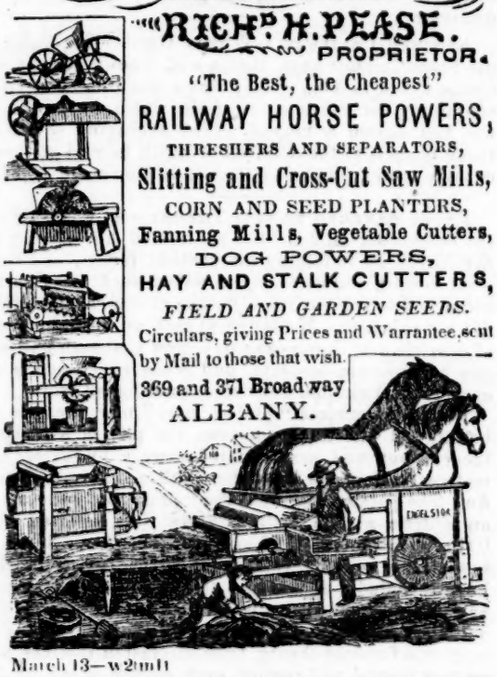
PAMPHEETS giving IMPARTIALLY the OPINIONS OF FARMERS, together with orders, notes, &c., mailed to applicants, and prepaid.

☞ Write to us at CHICAGO, (Ill.,) DAYTON, (Ohio,) or BALTIMORE, (Md.,) which ever is nearest you.

J. S. WRIGHT & CO.
"Prairie Farmer" Works, Chicago, March 6—w4tm4t

EXCELSIOR AGRICULTURAL WORKS
ALBANY, N.Y.

"RICH'D H. PEASE, PROPRIETOR.



"The Best, the Cheapest"

RAILWAY HORSE POWERS,
THRESHERS AND SEPARATORS,
Slitting and Cross-Cut Saw Mills,
CORN AND SEED PLANTERS,
Fanning Mills, Vegetable Cutters,
DOG POWERS,
HAY AND STALK CUTTERS,
FIELD AND GARDEN SEEDS.

Circulars, giving Prices and Warrantee, sent by Mail to those that wish.

369 and 371 Broadway
ALBANY.

March 13—w2m1t

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb 1—m1y Braintree, Mass.

SPRING SEEDS.

WHEAT—Club, Fife, Tea, Black Sea, &c.
Peas—all kinds.
Beans— do
Broom Corn Seed.
Clover and Grass Seeds, and
Garden Seeds in great variety.

RICH'D H. PEASE,
March 6—w&mtf 369 & 371 Broadway, Albany.

SPECKLED DORKINGS

AND Fancy Lop-Eared Rabbits, carefully boxed and delivered at the Express Office, Utica, at $5 each. For sale by R. H. VAN RENSSELAER,
Feb. 27—w3tm3t Morris, Otsego Co., N. Y.

BONE DUST,

GROUND, Turnings and Sawings.
For sale by A. LONGETT,
34 Cliff-st., corner of Fulton, New-York.
Feb. 27—w8tm3t

AGRICULTURAL IMPLEMENTS,

WHOLESALE and retail—FIELD and GARDEN SEEDS, in small and large quantities—FRUIT and ORNAMENTAL TREES from the best nurseries in the country. Farmers and Merchants will find it to their advantage, to give us a call before purchasing, at the *North River Agricultural Warehouse.*

GRIFFING, BROTHER & CO.
Feb. 14—w&mtf 60 Cortlandt-St., New-York.

FRUIT TREES,

FOR ORCHARDS AND FRUIT GARDENS,

CONSISTING of the best standard varieties, *whose genuineness has been proved in all cases,* are offered for sale by the subscriber. Careful selections will be made when desired, embracing a suitable proportion of the best sorts, so as to afford a regular succession of the finest fruit, at the following prices, viz:

Apples,	20	cents each.
Peach, 2 and 3 years,	20	" "
Cherry, " "	38	" "
Plum, " "	50	" "
Pears, Dwarf, 2 and 3 years,	38	" "
" Standard, " "	50	" "

Extra large trees will be at higher prices.

Ornamental trees, evergreens, shrubs, roses, &c., of carefully selected and hardy sorts.

Trees securely packed for any distance.

J. J. THOMAS,
feb. 28—w6tm2t Macedon, Wayne Co., N. Y.

NO. 1 PERUVIAN GUANO,

AT THE lowest market price.
Superphosphate of Lime,
Poudrette, manufactured by the Lodi Manufacturing Co.,
Plaster for Land purposes,
Charcoal Dust for Land purposes,
Bone Dust, Sawings, Turnings and Ground Bone,
Can now be obtained in large or small quantities at the

North River Agricultural Warehouse,

GRIFFING BROTHER & CO.,
Feb. 14—w&mtf 60 Cortlandt-St., New-York.

To Long-Island, Jersey and N. Y. Farmers.

THE subscribers, having the exclusive right to all the night-soil emptied from the sinks and privies of New-York City, for five years—and there being more than they wish to use themselves, they are prepared to furnish to Farmers at their landings up any river, creek, or bay, where vessels can come, the *crude night-soil*, just as received from the scavengers, and empty it into carts, or furnished tight tubs, in which it can be carried on to the land—for from 10 to 18 cts. *per bushel*, according to distance and circumstances, or persons sending their own vessels will be loaded at the company's wharves.

Now is the time to get a manure more powerful, more forcing, and cheaper than any in the known world. Cargoes will vary from 1000 to 8000 bushels, according to quantities desired. Apply to

THE LODI MANUFACTURING CO.,
Jan. 17—weow4tm4t 60 Courtlandt-st., New-York.

Superphosphate of Lime,

OF the best Brands.
For sale by A. LONGETT,
Feb. 27—w8tm3t 34 Cliff Street, New-York.

ICHABOE GUANO.

JUST RECEIVED by the brig Wave Spirit, direct from the Ichaboe Islands, a cargo of this superior Guano, (which is the first cargo arrived, since that brought by the ship Shakspeare in 1845.) This guano is now landed in excellent order, will be sold in lots to suit purchasers. Samples and analysis will be sent by addressing the Agent. As the quantity is small, early application will be necessary. Farmers who cannot remove what they desire, may have it remain on storage until April 1st, at 18¾ cts. per ton per month which includes Insurance.

Price $40 per ton of 2000 lbs.

A. LONGETT, Agent,
34 Cliff St., Corner of Fulton,
Nov. 1—w&mtf. New-York.

FISH GUANO.

THE Narragansett Manufacturing Co. of Providence, R. I., are prepared to execute orders for their Fish Guano. They have prepared their guano after two methods; one by chemically treating, cooking and then drying and grinding he Fish to a powder. This is put in bags and sold at $45 per ton. For the other variety the fish are prepared as above, (with the exception of drying and grinding;) and are then combined with an absorbent which is in itself a valuable fertilizer; and sold at $2 per barrel, containing about 200 lbs. This compost is of great strength, and must be a very efficient fertilizer, as it is composed in great part of simple flesh and bones of fish.

Dr. Charles T. Jackson, of Boston, has made an analysis of the Powder, and says:

"It is similar to Peruvian Guano in composition, with the exception that the ammonial matter is dried flesh of fish, and not putrified, so as to be ammoniacal. It will, however, produce ammonia by decomposition in the soil. One hundred grains of this manure, dried and finely pulverized, was submitted to analysis, with the following result:

ANALYSIS.

Ammonial matter, (flesh of fish,)	48-00
Phosphate of Lime,	33-90
Carbonate of Lime,	7-60
Sulphate of Lime,	6-40
Potash and Soda,	4-10
	100-00

Respectfully your obedient Servant,

CHARLES T. JACKSON,
Assayer to the State of Massachusetts."
Boston, July 21st, 1855.

Dr. Jackson's opinion of our Guano is expressed in the following Note:

BOSTON, March 9th, 1855.

S. B HALLIDAY, Esq.—Dear sir:—In reply to your letter, I would state my entire confidence in the superiority of a properly prepared artificial guano, made from fishes, over that of the natural guano of birds, obtained from the coast of Peru.

It is obvious that more of the nitrogenous, or ammonia producing substances, exist in fish prepared after your method, than are found in any guano, and hence the artificial preparation will go further in the fertilization of a soil.

The ammoniacal salts act chiefly in bringing the foliage into a healthy and luxuriant condition, and thus causes the plant to absorb more of the phosphate and other necessary salts and substances from the soil, and more carbonic acid from the air. The carbonate of ammonia also, is a solvent for humus, and it quickly saturates any injurious acid salts that may exist in the soil, and forms from some of them valuable fertilizers.

Respectfully, your obedient servant,
C. T. JACKSON, M. D., State Assayer, &c.

This Manure is offered to agriculturists with the assurance of its becoming one of the most popular to be obtained. The Company are ready to establish agencies at such points as are desirable for the convenience of Farmers. As the supply for this season is rather limited, the Company esteem it a favor to have orders forwarded early to enable them to lay down at their agencies the requisite quantities in proper time for use,—orders may be addressed to the Company at Providence, or to R. H. PEASE, Albany, N. Y. or R. L. ALLEN, New-York. S. B. HALLIDAY, Agt.

22 West Water St., Providence, R. I.
Jan. 21—w6t—m6m.

STRAWBERRY POTATO.

A FEW barrels to spare—
Price—¼ bushel,.....$ 1.25
½ " 2.25
1 " 4.00
1 barrel of 2½ bushels, ... 10.00
Delivered in Albany. Address G. W. DURANT, Renselaerville, Albany Co., or E. P. DURANT, 119 Pier, Albany.
Feb. 21—w1tm2t

SALAERATUS.

THE subscribers offer to the trade Salaeratus of different grades of strength, which they claim to be superior in quality to any other in market, and entirely free from any deleterious ingredients.

We are the only Manufacturers whose process of manufacture is conducted under the immediate superintendence of an experienced practical chemist. Having been engaged for several years in the manufacture of our peculiar kind of Salaeratus, and being the originator of those manufactured, we can offer to consumers a guarantee of its great excellence, which no other manufacturer can do; the new kinds of Salaeratus pompously set forth, under various names, in different advertisements, being merely imitations of the article we originally introduced to the public.

We warrant the quality of all goods sold by us, and agree to return the purchase money, together with expenses of transportation, on every article that proves to be inferior to our represenation of its quality.

JOHN DWIGHT & CO.,
Feb. 21—m3t* No. 112 Pearl-st., New-York,

FOR SALE,

A VERY VALUABLE FARM.—The subscriber having determined to retire from business, offers his Farm for sale, containing about nine hundred acres of land, lying in Fairfax county, Virginia, about *ten* miles from Alexandria, Georgetown and Washington, which afford the best markets in the United States for the ordinary products of the farm.

The buildings are all comfortable; and the most of them have been erected within a few years. The *dwelling* is of *brick* with a frame addition containing *eleven* (11) *rooms*—the other buildings consist of *houses* for *laborers* with their families—a large *barn* and *stables*—*granary*—*carriage* and *wagon houses*—large *stone dairy*—*stone ice and meat houses*—a *large house* for *apples* and *cider* making, with *extensive cellars* for storing cider, and vinegar—and other necessary outhouses.

There are about 1000 *peach trees* of choice varieties; and 1500 or more *apple trees*, all in fine bearing condition; from which the subscriber realized last season between four and five thousand dollars, which amount might easily have been *increased to double by an efficient salesman*.

Large crops of *corn*, *wheat*, *oats*, *hay*, &c. are annually produced, for which the soil and climate are admirably adapted. The *meadows* are very *extensive*; and have yielded, without failure, heavy crops of hay for 40 years, without ever having been manured. The soil is easily improved; and is more retentive of improvement than any land within an equal distance of Washington.

It lies between two Railroads, one and a half miles distant from each. These roads, which will soon be completed, run through a lime-stone region 25 to 30 miles distant, and will be able to furnish it in any required quantity. The proprietor, 12 years ago, applied to a field 30 bushels of lime to the acre, with remarkable effect in increasing the crops, which effect still continues.

A large part of this land is in wood—much of it being heavy primitive *Oak-timber* suitable for ship building

It is *abundantly* supplied with the *purest water*. In point of *healthfulness*, it *cannot* be *surpassed*. The subscriber's family, never numbering less than 25 persons, have not cost for medical services more than an average of $10 per annum, for the last *twenty years*

The wood-land is so distributed that the estate can be divided into several parts.

There are Methodist, Presbyterian, Episcopalian and Baptist churches in the neighborhood.

It is offered at thirty-five dollars per acre, which is not half its value—the orchards and meadows alone, being worth the amount demanded for the whole estate.

Its proximity to Washington, the permanent sent of the General *Government*, which is growing very rapidly in wealth and population, must, with its other advantages, increase its value annually.

Persons wishing to purchase will make application to
WM. Y. DULIN,
near Falls Church,
March 1—mtf. Fairfax county, Virginia.

King Philip or Brown Corn.

THE subscriber has received and offers for sale in small quantities, (genuine,) the above desirable variety of corn. Price 25 cents per quart.

WILLIAM THORBURN,
Albany Seed Store,
Feb 28—w4tm1t 492 Broadway.

HIGHLAND NURSERIES,

NEWBURGH, N. Y.

A. SAUL & CO., in calling the attention of the public to their establishment, deem a lengthened notice unnecessary. They would merely state that the stock of their nurseries, which they offer for sale the coming spring, is full in every department, and is of the best quality; including all the recently introduced *Pears* and other fruits, both *Dwarf* and *Standard*; also all the varieties in the *ornamental department*, both deciduous and evergreen, including all the new and rare *Conifers*, *Weeping Trees* and *Shrubs*, as well as a full stock of all the leading articles to be had in the trade.

For particulars in detail, they refer to their general catalogue, a new edition of which is ready, and will be forwarded to all *post-paid* applications, enclosing a P. O. Stamp to prepay the same.

A large quantity of Osage Orange and Buckthorn plants, for hedge and screen purposes.

Dealers and planters of trees on a large scale, dealt with on the most liberal terms.

Newburgh, March 1, 1856—weow4tm2t

Farmers' and Planters' Encyclopedia.

THE new and improved edition of this valuable book is in one volume, octavo, handsomely bound in Russia leather. It contains about 1200 closely printed pages, and is illustrated with numerous plates, of animals, plants, implements, etc.

The Hon. Marshall P. Wilder, President of the United States Agricultural Society, in a letter to the American Editor, G. Emerson of Philadelphia, says:

"After an attentive examination of your Farmers' and Planters' Encyclopedia, I take pleasure in recommending it as a standard work, abounding in practical and scientific information adapted to the comprehension of unscientific readers. A copy should be in the hands of every farmer or person at all interested in rural affairs. It is peculiarly well suited to the purposes of a premium book for distribution by Agricultural Societies, and in this way may be placed in the hands of many that it would not otherwise be likely to reach In the publication of this work you have contributed greatly to promote the diffusion among our countrymen, of the best agricultural information, arranged in the most convenient form for ready reference.

Boston, April 7th, 1855."

To be had at the principal book stores in the U. S. On receipt of $4 00 by Luther Tucker & Son, Albany, N. Y., C. M. Saxton & Co., 140 Fulton-st., New-York, or D. Landreth & Co., 21 South 6th-st., Philadelphia, a copy will be forwarded to any part of the United States, free of charge for postage or carriage. *A liberal discount made to Agricultural Societies or Clubs taking a number of copies.*

Feb. 21—w1tmeom2t

Hay Presses! Hay Presses!

DEDERICK'S CELEBRATED PARALLEL LEVER HAY PRESSES, Patented May 16th and June 6th, 1854, which are now being Shipped to all parts of the country, and are in every case giving the most decided satisfaction—made to bale from 100 to 500 lbs and sold for from $100 to $175. For Circulars with engravings and full explanatory description, apply personally or by mail to

DEERING & DICKSON,
Premium Agricultural Works, Albany, N. Y.
Dec. 27—w&mtf

CRANBERRY CULTURE,

THE subscriber has issued a circular in relation to CRANBERRY CULTURE, and will forward it to all applications without charge. Also will forward PLANTS, in a fresh state, by Adams & Co.'s Express, to any part of the United States, or by any other conveyance requested. Price $7 per 1000. When clubs are formed for a considerable quantity, a liberal discount made. Should any of the plants die out with fair usage, other plants will be sent to fill all va cant places without charge. Address

SULLIVAN BATES,
Jan. 24—w&m3m Bellingham, Norfolk Co., Mass.

UNITED STATES AGRICULTURAL Warehouse and Seed Store.

MAYHER & CO., Nos. 195 and 197 Water Street, New-York, where may be found the largest and most complete assortment of

Agricultural and Horticultural Implements, FIELD AND GARDEN SEEDS,

ever offered for sale in the United States

Among our collection may be found the following, viz: —

Plows of every size and kind ever made, comprising some 150 different patterns; also, the genuine Eagle D and F Plows, which have taken the premium wherever tried and tested.

Harrows, Geddes, Triangular, Scotch and Square of al. sizes.

Cultivators, with Cast, Wrought Iron and Steel Teeth, of different kinds.

Straw Cutters of various patterns, for cutting Hay, Straw, and Corn Stalks

Fan Mills, of twenty different styles and sizes, for cleaning all sorts of Grain; also, Coffee Hand Mills, for cleaning and sorting Coffee; a prime article for the West India market.

Horse Powers and Threshers, for one, two, four and eight horses; we have the Railway Power and Sweep Power, of different kinds, with Threshers, Separators, and Cleaners attached.

Mowing Machines; Ketchum's celebrated Mower, that will mow and spread in a perfect manner, twelve acres of grass per day. Reaping Machines; McCormick's, Hussey's and other makers.

Churns; fifty different styles, among which is the "THEROMETIC CHURN," which is considered to be the best in use.

We have also Hall's celebrated eight horse power, and combined Thresher, Separator, and Cleaner, well suited to the California market. And in a word every article necessary for the Farm, Plantation, or Garden, may be found at the UNITED STATES AGRICULTURAL WAREHOUSE AND SEED STORE, No. 197 WATER STREET, NEW-YORK.

N. B. An illustrated catalogue will be furnished by addressing the subscribers as above. March 1—mtf

To Farmers and Gardeners.

THE subscriber offers for sale a new and *very early* SEEDLING POTATO of his own raising, which for productiveness, hardiness, early maturity, and fine qualities for the table, is believed to be superior to any other variety in cultivation.

It has now been cultivated for four years, and every year has produced a large crop of sound tubers.

It is a white potato, and being larger and more productive than the "Early June," will be found particularly valuable for the market gardener, as it is quite as early as that variety. In testing the comparative value of this potato, the undersigned has made no attempt, by high manuring and extra cultivation, to produce a few hills of large potatoes, but in every instance it has been planted in the field with the "Early June" and other varieties, and in sufficient quantities to give it a fair trial; at the same time giving it the ordinary field cultivation. Under these circumstances, and notwithstanding the extreme drouth of 1854, it has in no season produced less than two hundred bushels to the acre, while in some it has produced three hundred.

Price $4 per barrel, delivered at the R. R. Depot or Steamboat Landing at Hudson.

References—S. K. Hogeboom and Wm. E. Miller, Esqs., Claverack. Address E. G. STUDLEY,
Jan. 31—w2tm3t Claverack, Col. Co., N.Y.

JUST PUBLISHED,

THORBURN'S RETAIL CATALOGUE for 1856, of Vegetable, Herb, Grass, &c., Seeds, will be mailed to any address on application.

J. M. THORBURN & CO.,
Jan. 3—w2tinjf&m—m3t 15 John Street, New-York.

PERUVIAN GUANO.

PERUVIAN GUANO, No. 1, with Government weight and brand upon each bag.

PERUVIAN GUANO, No. 1, taken from the lower part of the cargo, a little damp, with above brand upon each bag.

As the latter article is sold by some retail dealers for the best quality, be particular to observe that the *Damp* Guano has the figure **2** under the weight mark. For sale by

ANTOINE LONGETT,
34 Cliff street, corner of Fulton,
Oct. 11—mtf New-York.

PURE BRED STOCK

FOR SALE—Thorough Bred Durham Cattle, Pure Bred Spanish Sheep French Sheep, Suffolk Pigs and Essex Pigs. Apply to J. S. GOE, Tippecanoe, 4½ miles east of Brownsville, Fayette Co., Pa. Jan 1—w&mly*

CHOICE GARDEN,

FIELD AND FLOWER SEEDS, among which are Poland, Siberian, Friezeland and Canada Branch oats—Mexican, Early June, Mercer, Carter, &c., Potatoes,—English Potato and Top Onions—20 varieties of Melons: White Imperial, Mountain Sweet, Orange, Long Island, Black Spanish, Early, &c. Watermelons—Skillman's, Pine Apple, Golden Nutmeg, Early Christiana, Large Canalupe, &c., Muskmelons—White Spine, Early Frame, Long Green, &c., Cucumbers—Early Walcheren and London Cauliflowers—Okra—25 varieties of Flower Seeds for One Dollar.

I. A. CLARK,
Jan. 31—w1tm2t Marion, Wayne Co., N. Y.

P. D. GATES,

COMMISSION MERCHANT, and dealer in *Agricultural Implements and Machinery*, No. 12 BROADWAY, NEW-YORK.

☞ Ketchum's Mowing Machines, Hay Presses, Horse Hoes, Cultivators, Plows, Straw Cutters, Corn Shellers, Reapers, Horse Powers and Threshers, Combined Thresher, and Winnowers, and other Agricultural Machines.

May 24—m12t*

EXCELSIOR HORSE POWER and Threshing Machines.

BY an experience of several years, this Portable Lever Four Horse Power and Spike Thresher, has proven to be the best and cheapest yet known. None have ever failed to give satisfaction in all respects. Its operation is easily understood, and can be used with one to four horses. It can be moved from place to place with ease, and can thresh out 50 to 75 bushels of wheat in an hour.

Price of Power, No. 1 Thresher, Band and Irons,...$130.00
Price of Do. No. 2, Do. Do. Do. .. 125.00

Orders will be duly attended to.

Terms cash on delivery in this city.

PLANT BROTHERS,
General Commission Merchants,
Feb. 28—w1tm2t 75 Pine-st., New-York.

ALBANY TILE WORKS,

Corner of Patroon and Knox Streets, Albany, N. Y.

THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities, for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned, and over one foot in length. On orders for 10,000 or more, a small discount will be made.

HORSE SHOE TILE.

4½ inch calibre, $18 per 1000; 3½ inch calibre, $15 per 1000; 2½ inch calibre, $12 per 1000.

SOLE TILE, OR PIPE.

3 inch calibre, ...$18 per 1000.
2 inch calibre, ... 12 per 1000.

Also on hand 8 inch Horse Shoe Tile for large drains, $8 per 100—5½ inch, $40 per 1000. Sole Tile, 4 inch calibre, for sink drains, $40 per 1000—6 inch calibre Octagon Pipe, $20 per 100—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

C. & W. M'CAMMON,
late BABCOCK & VAN VECHTEN,
Feb. 21—w&m3ms. Albany, N. Y.

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Improved King Philip or Brown Corn,

An Early, Hardy and Productive Variety.

TO PLACE this valuable variety of corn and the pure Poland oats within the reach of all, I will for 25 cents, send two ounces by mail, post-paid, to any address, and any additional quantity free, for the postage (6 cents per ounce.) Also, the celebrated *Japan Pea* and *Wyandot Prolific Corn*, 2 ozs. or more at 12½ cents per ounce. The King Philip corn and Poland oats by Express—from 1 peck to 2 bushels at $1 per peck. Sacks and delivery to Express Co. *free*.

Address I. W. BRIGGS,
March 20—w&m1t West Macedon, Wayne Co., N. Y.

Schenectady Agricultural Works.

IN CONSEQUENCE OF THE INCREASED DEMAND for their

Improved RAILWAY HORSE POWERS,
THRASHERS AND SEPARATORS,
Combined THRASHERS and WINNOWERS.
Circular SAWING MACHINES and CLOVER HULLERS,

The undersigned have purchased a large establishment in Schenectady, N. Y., and are now prepared by increased facilities to supply all orders from any part of the country promptly. G. WESTINGHOUSE & CO.

Schenectady, March 6, 1856—w&mtf

Florida, N. Y., March 1, 1856.

MESSRS. G. WESTINGHOUSE & Co.—The machines—a two horse power, thrasher and winnower, that I bought of you last summer, have been used steadily during the season of thrashing. We thrashed from 300 to 400 bushels of oats per day, and cleaned the grain first rate. We thrashed at David Johnson's, in five days, 2,150 bushels of oats. The machines have given better satisfaction than and other machines ever used in this section, according to the statements made by those for whom I have thrashed. We have thrashed as much as 30,000 bushels of grain since we got it, and there has been no cost for repairs. I consider them the most perfect operating machines that I ever saw. Yours,

March 20—w2m1t. AMOS BILLINGTON.

The Illustrated Annual Register.

Two numbers of this work are now issued—for 1855 and 1856—and it will hereafter be published regularly, toward the close of each year; and every person who takes any interest in rural affairs should be careful to secure the work from its commencement. In a few years it will form a more valuable RURAL LIBRARY than can be procured in any other shape for ten times the money.

PRICE—in paper covers—25 cents—Five copies, $1—Twelve copies, $2. Bound in muslin, 50 cents. *Sent by mail post-paid.* L. TUCKER & SON.

RURAL PUBLICATIONS.

THE COUNTRY GENTLEMAN—THE CULTIVATOR, AND THE ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS—*Published at Albany, N. Y., by* LUTHER TUCKER & SON.

THE COUNTRY GENTLEMAN is a beautfully illustrated weekly of 16 pages quarto, with special Departments for *The Farm, The Grazier, The Dairy, The Fruit Garden and Orchard, The Florist, The Kitchen Garden, The Poultry Yard, The Housewife, The Fireside, &c.* "This is, without question, the BEST Agricultural Paper in the United States."—Hon. JOHN WENTWORTH, M. C. of Illinois. Price $2 a year.

THE CULTIVATOR, monthly, 32 pages octavo—well-known for twenty years, as the best monthly agricultural journal in this country—price 50 cents per year.

THE ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS. The two Nos. issued for 1855 and 1856, contain more than 250 engravings of buildings, animas, trees, fruits, &c., &c. Price 25 cents each—*sent post paid by mail.*

These works combine attractions to be found in no similar publications, and the publishers will send specimens of he papers to all who would like to examine them.

☞ Our exchanges will confer a favor by giving the above one or two insertions.